



\*\*FILE\*\*ID\*\*DSRLIB

D 14

The image shows a 2D grid of characters representing a game map. The grid is composed of various symbols: 'D' for the player, 'B' for blocks, 'S' for switches, 'R' for rooms, 'L' for ladders, and 'I' for stairs. The map features a central vertical staircase, a horizontal corridor, and various rooms and ladders. The symbols are arranged in a grid pattern, with some characters appearing multiple times to represent different instances of the same object.

0001 0  
0002 0  
0003 0      Version: 'V04-000'  
0004 0  
0005 0  
0006 0  
0007 0  
0008 0  
0009 0  
0010 0  
0011 0  
0012 0  
0013 0  
0014 0  
0015 0  
0016 0  
0017 0  
0018 0  
0019 0  
0020 0  
0021 0  
0022 0  
0023 0  
0024 0  
0025 0  
0026 0  
0027 0  
0028 0  
0029 0  
0030 0  
0031 0  
0032 0  
0033 0  
0034 0  
0035 0  
0036 0  
0037 0  
0038 0  
0039 0  
0040 0  
0041 0  
0042 0  
0043 0  
0044 0  
0045 0  
0046 0  
0047 0  
0048 0  
0049 0  
0050 0  
0051 0  
0052 0  
0053 0  
0054 0  
0055 0  
0056 0  
0057 0  
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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
DSRLIB.REQ requires in almost all Require files used by DSR and DSRPLUS.  
It is used to build both DSRLIB.L-- and DPLLIB.L--, which are used (via  
a conditionalized LIBRARY statement) by almost all modules in the DSR /  
DSRPLUS code.  
The remaining REQUIRE statements in the code occur in RNFERM.BLI, which  
requires MSGTXT.REQ, and in LP1.BLI, which requires RUNTAB.REQ.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Keith Dawson CREATION DATE: March 1983  
MODIFIED BY:  
008      REM00008      Ray Marshall      4-June-1984  
            Added a SWITCHES declaration to cause the expansion of the  
            .REQ files.  
007      KAD00007      Keith Dawson      9-May-1983  
            Remove support for .DX, .PX.  
006      KAD00006      Keith Dawson      13-Apr-1983  
            Added conditionals on CREFDS, GTOKCC, KEYWORD.  
005      KAD00005      Keith Dawson      7-Apr-1983  
            Added require files GTOKCC, KWTDEF (omitted by accident)

F 14  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 2  
(1)

0058 0	004	KAD00004	Keith Dawson	6-Apr-1983
0059 0			Added require files for cross-referencing (KEYWORD, CREFDS),	
0060 0			final-output modifications (PASS).	
0061 0	003	RER00003	Ron Randall	04-Apr-1983
0062 0			For DSRPLUS: Added topnote require files (TNREC, TOPNOT).	
0063 0	002	KAD00002	Keith Dawson	17-Mar-1983
0064 0			Conditionalized 6 DSRPLUS-only Require files on the DSRPLUS	
0065 0			variant.	
0066 0		--		
0067 0				
0068 0				
0069 0				

```
0070 0 LIBRARY 'NXPORT:XPORT';
0071 0
U 0072 0 %IF (%VARIANT/2) %THEN,
U 0073 0 LIBRARY 'REQ:RNODEFDPL';        ! Define /VARIANT macros
0074 0 %ELSE
U 0075 0 LIBRARY 'REQ:RNODEFDSR';        ! Define /VARIANT macros
0076 0 %FI
0077 0
0078 0 SWITCHES LIST (REQUIRE);        ! This declaration causes the remaining files
0079 0                                    to be expanded in the listing
0080 0
0081 0   ! The following files are used by some of the Require files to come.
0082 0
0083 0 REQUIRE 'REQ:MAXIMA.REQ';        ! Maximum values on some DSR / DSRPLUS parameters.
```

R0084 0  
R0085 0 Version: 'V04-000'  
R0086 0  
R0087 0 \*\*\*\*\*  
R0088 0 \*  
R0089 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R0106 0 \*  
R0107 0 \*  
R0108 0 \*  
R0109 0 \*  
R0110 0 \*  
R0111 0 \*\*  
R0112 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R0113 0  
R0114 0 ABSTRACT:  
R0115 0 Maximum values of DSR / DSRPLUS parameters, including the  
R0116 0 maximum allowed ranges on numbers.  
R0117 0  
R0118 0 ENVIRONMENT: Transportable BLISS  
R0119 0  
R0120 0 AUTHOR: Keith Dawson  
R0121 0  
R0122 0 CREATION DATE: March 1983  
R0123 0  
R0124 0 MODIFIED BY:  
R0125 0  
R0126 0 002 KAD00002 Keith Dawson 21-Mar-1983  
R0127 0 Move xp\_string\_size from KWXYYP.REQ to MAXIMA.REQ.  
R0128 0  
R0129 0 --  
R0130 0  
R0131 0 LITERAL  
R0132 0 max\_levels = 6, !Maximum..  
R0133 0 max\_page\_ranges = 5, !header-level depth.  
R0134 0 max\_require = 10, !number of /PAGE RANGE specifications.  
R0135 0 max\_save\_depth = 20, !depth of .REQUIRE commands.  
R0136 0 max\_tabs = 40, !number of simultaneous .SAVE commands.  
R0137 0 max\_title = 450, !number of tab stops.  
R0138 0 max\_vr\_length = 15, !internal length of titles and subtitles.  
R0139 0 max\_vr\_names = 20; !length of a variable name.  
R0140 0 !number of variables.

```
R0141 0 LITERAL
R0142 0     xp_string_size = 50;      !Maximum length of SORT= or APPEND= strings.
R0143 0
R0144 0 MACRO
R0145 0     most_positive =
R0146 0     ABS (most_negative + 1) !Biggest positive number that can be represented.
R0147 0     %,
R0148 0
R0149 0     most_negative =
R0150 0     %BLISS16(%X'8000') %BLISS32(%X'80000000') %BLISS36(%0'400000000000')
R0151 0     %,
R0152 0
R0153 0     most_digits =
R0154 0     %BLISS16(5) %BLISS32(10) %BLISS36(11) !Maximum number of digits in a number.
R0155 0     %,
R0156 0
R0157 0     most_digits_9 =
R0158 0     %most_digits - 1) !Maximum number of digits in a number of the form 99...
R0159 0     %;
R0160 0
R0161 0     ! End of MAXIMA.REQ
```

J 14  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 6 (2)

: 0162 0 REQUIRE 'REQ:BPOSIT.REQ'; ! Macro to return the bit position part of a field definition.

Version: 'V04-000'

\*\*\*\*\*

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FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
Defines a macro to return the bit position part of a field definition.  
It is intended to be used with the fields defined in LSTBTS, but is  
generally applicable.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:

004 KAD00004 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--

MACRO  
BPOSIT (S, C, X) = S%;

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15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_ \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 8 (2)

: 0216 0 REQUIRE 'REQ:CLIST.REQ'; ! CL\_... (counted list) items

R0217 0  
R0218 0 Version: 'V04-000'  
R0219 0  
R0220 0  
R0221 0  
R0222 0 \*\*\*\*\*  
R0223 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R0240 0  
R0241 0  
R0242 0  
R0243 0  
R0244 0  
R0245 0 \*\*  
R0246 0 \* FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R0247 0  
R0248 0 \* ABSTRACT:  
R0249 0 \* Definitions for counted lists. A counted list carries with it  
R0250 0 \* its own description: current size, first and next character  
R0251 0 \* positions, and maximum size.  
R0252 0 \*  
R0253 0 \* ENVIRONMENT: Transportable BLISS  
R0254 0 \*  
R0255 0 \* AUTHOR: Rich Friday  
R0256 0 \*  
R0257 0 \* CREATION DATE: 1978  
R0258 0 \*  
R0259 0 \* MODIFIED BY:  
R0260 0 \* 003 KAD00003 Keith Dawson 07-Mar-1983  
R0261 0 \* Global edit of all modules. Updated module names, idents,  
R0262 0 \* copyright dates. Changed require files to BLISS library.  
R0263 0  
R0264 0  
R0265 0  
R0266 0  
R0267 0  
R0268 0  
R0269 0  
R0270 0  
R0271 0  
R0272 0  
R0273 0  
--  
LITERAL CL\_DEFAULT\_SIZE = 15;  
STRUCTURE COUNTED\_LIST[I:N=CL\_DEFAULT\_SIZE] =  
[%UPVAL\*(N + 2)] ! First two elements for control information  
(COUNTED\_LIST + (1 + I)\*%UPVAL);

N 14  
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15-Sep-1984 22:50:09 \$255\$DUA28:[RUNOFF.SRC]CLIST.REQ;1 Page 10  
(1)

R0274 0  
R0275 0 LITERAL  
R0276 0 CL\_MAX\_INDEX = -1. | Maximum allowable 'I' saved at start.  
R0277 0 CL\_INDEX = 0; | Current 'I'  
R0278 0  
R0279 0 ! End of CLIST.REQ

B 15  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_ \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 11 (2)

: 0280 0 REQUIRE 'REQ:LSTBTS.REQ'; ! BAR\_\_, CND\_\_, ISQ\_\_, & RIT\_\_

R0281 0  
R0282 0 Version: 'V04-000'  
R0283 0  
R0284 0  
R0285 0  
R0286 0  
R0287 0  
R0288 0  
R0289 0  
R0290 0  
R0291 0  
R0292 0  
R0293 0  
R0294 0  
R0295 0  
R0296 0  
R0297 0  
R0298 0  
R0299 0  
R0300 0  
R0301 0  
R0302 0  
R0303 0  
R0304 0  
R0305 0  
R0306 0  
R0307 0  
R0308 0  
R0309 0  
R0310 0  
R0311 0  
R0312 0  
R0313 0  
R0314 0  
R0315 0  
R0316 0  
R0317 0  
R0318 0  
R0319 0  
R0320 0  
R0321 0  
R0322 0  
R0323 0  
R0324 0  
R0325 0  
R0326 0  
R0327 0  
R0328 0  
R0329 0  
R0330 0  
R0331 0  
MRO332 0  
R0333 0  
MRO334 0  
R0335 0  
MRO336 0  
R0337 0  
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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
Defines BAR\_\_\_, CND\_\_\_, ISQ\_\_\_, OSQ\_\_\_, & RIT\_\_\_.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Rich Friday  
CREATION DATE: 1978  
MODIFIED BY:  
005 REM00005 Ray Marshall 16-May-1984  
Added OSQ\_\_ to support outputting of the output line number.  
004 KAD00004 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
--  
MACRO  
BAR-%. = 0,1 ! /CHANGE  
CND-%. = 1,1 ! /DEBUG:CONDITIONALS  
ISQ-%. = 2,1 ! /SEQUENCE

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\$255\$DUA28:[RUNOFF.SRC]LSTBTS.REQ;1

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(1)

: MR0338 0 RIT -z. = 3,1 ! /RIGHT  
: R0339 0  
: MR0340 0 OSQ -z. = 4,1 ! /DEC\_INTERNAL=OUTPUT\_LINE\_NUMBERS  
: R0341 0

E 15  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 14  
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: 0342 0 REQUIRE 'REQ:NBITS.REQ'; ! More "\_\_\_" bit definitions for a few flags

R0343 0  
R0344 0 Version: 'V04-000'  
R0345 0  
R0346 0  
R0347 0  
R0348 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R0365 0  
R0366 0  
R0367 0  
R0368 0  
R0369 0  
R0370 0  
R0371 0 \*\*  
R0372 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R0373 0  
R0374 0 ABSTRACT:  
R0375 0      Defines BLD\_\_\_, UND\_\_\_, BLDUND\_\_\_, OVR\_\_\_, IND\_\_\_, & HYP\_\_\_.  
R0376 0  
R0377 0  
R0378 0 ENVIRONMENT: Transportable BLISS  
R0379 0  
R0380 0  
R0381 0  
R0382 0 AUTHOR: Rich Friday  
R0383 0  
R0384 0 CREATION DATE: 1978  
R0385 0  
R0386 0  
R0387 0  
R0388 0  
R0389 0  
R0390 0  
MR0391 0  
R0392 0  
MR0393 0  
R0394 0  
MR0395 0  
R0396 0  
MR0397 0  
R0398 0  
MR0399 0  
--  
MACRO  
BLD\_ = 0,1 ! Bolding bit.  
UND\_ = 1,1 ! Underlining bit.  
BLDUND\_\_ = 0,2 ! Bolding and underlining together.  
OVR\_ = 2,1 ! Overstrike bit.  
IND\_\_ = 3,1 ! Indexing bit.

G 15

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15-Sep-1984 22:53:15

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\$255\$DUA28:[RUNOFF.SRC]NBITS.REQ;1

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(1)

R0400 0  
MR0401 0  
R0402 0  
R0403 0  
HYP-%.  
= 4,1 ! Hyphenation bit.  
End of NBITS.REQ

H 15

15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 0404 0 REQUIRE 'REQ:PAGEN.REQ'; ! SCT\_.... and PAGE\_DEFINITION macros

R0405 0  
R0406 0 Version: 'V04-000'  
R0407 0  
R0408 0  
R0409 0  
R0410 0 \*\*\*\*\*  
R0411 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R0428 0 \*  
R0429 0 \*\*\*\*\*  
R0430 0  
R0431 0  
R0432 0 ++  
R0433 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R0434 0  
R0435 0 ABSTRACT:  
R0436 0 A page number carries with it not only its current value, but also  
R0437 0 codes as to how those values are to be displayed when they are finally  
R0438 0 output. It was decided to do it this way rather than have a separate  
R0439 0 table so that the program TCX would have less trouble.  
R0440 0  
R0441 0 ENVIRONMENT: Transportable BLISS  
R0442 0  
R0443 0 AUTHOR: Rich Friday  
R0444 0  
R0445 0 CREATION DATE: 1978  
R0446 0  
R0447 0 MODIFIED BY:  
R0448 0  
R0449 0 004 KAD00004 Keith Dawson 07-Mar-1983  
R0450 0 Global edit of all modules. Updated module names, idents,  
R0451 0 copyright dates. Changed require files to BLISS library.  
R0452 0  
R0453 0 --  
R0454 0  
R0455 0 LITERAL  
R0456 0 page\_sct\_size = 4;  
R0457 0  
R0458 0 LITERAL  
R0459 0 sct\_chapt = 1.  
R0460 0 sct\_index = 2.  
R0461 0 sct\_append = 3; !Type of section:  
R0462 0 !Chapter section.  
R0463 0 !Index section.  
R0464 0 !Appendix section.

```
R0462 0
R0463 0      LITERAL
R0464 0          sct_low      = 1;           | Lowest section type key.
R0465 0          sct_high     = 3;           | Highest section type key.
R0466 0
R0467 C      MACRO
R0468 0          sct_typ      = 0, 0,      4,      0 %, | Section Type (zero if none).
R0469 0          sct_page_d   = 0, 4,      4,      0 %, | Display code for page number.
R0470 0          sct_sub_page = 0, %BPVAL/2, %BPVAL/2, 0 %, | Subpage, if any (zero if none).
R0471 0          sct_number    = 1, 0,      %BPVAL, 0 %, | Type of section number.
R0472 0          sct_page     = 2, 0,      %BPVAL, 0 %, | Page number.
R0473 0          sct_subpg_d = 3, 0,      4,      0 %, | Display code for subpages.
R0474 0          sct_chapt_d  = 3, 4,      4,      0 %, | Display code for chapters.
R0475 0          sct_appen_d = 3, 8,      4,      0 %, | Display code for appendices.
R0476 0          sct_index_d = 3, 12,     4,      0 %: | Display code if indexes.
R0477 0
R0478 0      MACRO
R0479 0          sct_run_page = 3, %BPVAL/2, %BPVAL/2, 0 %; ! Running page number.
R0480 0
R0481 0      MACRO
R0482 0          page_definition = BLOCK [page_sct_size] %;
R0483 0
R0484 0      !           End of PAGEN.REQ
```

K 15

15-Sep-1984 23:07:40  
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VAX-11 Bliss-32 V4.0-742  
\$\_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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: 0485 0

0486 0 REQUIRE 'REQ:ARECCC.REQ'; ! AREC completion codes.

R0487 0  
R0488 0 Version: 'V04-000'  
R0489 0  
R0490 0  
R0491 0  
R0492 0  
R0493 0  
R0494 0  
R0495 0  
R0496 0  
R0497 0  
R0498 0  
R0499 0  
R0500 0  
R0501 0  
R0502 0  
R0503 0  
R0504 0  
R0505 0  
R0506 0  
R0507 0  
R0508 0  
R0509 0  
R0510 0  
R0511 0  
R0512 0  
R0513 0  
R0514 0  
R0515 0  
R0516 0  
R0517 0  
R0518 0  
R0519 0  
R0520 0  
R0521 0  
R0522 0  
R0523 0  
R0524 0  
R0525 0  
R0526 0  
R0527 0  
R0528 0  
R0529 0  
R0530 0  
R0531 0  
R0532 0  
R0533 0  
R0534 0  
R0535 0  
R0536 0  
R0537 0  
R0538 0  
R0539 0  
R0540 0  
R0541 0  
R0542 0  
R0543 0  
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\*\*\*\*\*  
++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
Completion codes returned by AREC.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Rich Friday  
CREATION DATE: 1978  
MODIFIED BY:  
002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
!--  
LITERAL  
END\_OF\_STRING = 1, ! The uneaten string has been exhausted.  
CF\_BREAK = 2, ! Special form of the .BREAK command.  
CF\_CF = 3, ! Two adjacent <CONTROL flag>s.  
CF\_COMMENT = 4, ! Special form of comment (.;).  
CF\_LETTER = 5, ! A <CONTROL flag> followed by a letter.

M 15  
15-Sep-1984 23:07:40  
15-Sep-1984 22:49:24

VAX-11 Bliss-32 v4.0-742  
\_ \$255\$DUA28:[RUNOFF.SRC]ARECCC.REQ;1 Page 22 (1)

```
R0544 0
R0545 0      END_FOOTNOTE = 6,    ! <ENDFOOTNOTE flag>.
R0546 0
R0547 0      FIRST_SPACE = 7,    ! A space or tab.
R0548 0
R0549 0      FIRST_SEMI = 8,    ! A semicolon (';').
R0550 0
R0551 0      CF_OTHER = 9,    ! <CONTROL flag> followed by something else.
R0552 0
R0553 0      NOT_SPACE = 10;   ! None of the other cases.
R0554 0
R0555 0      LITERAL ARECCC_COUNT = 10;   ! Number of completion codes returned by AREC.
R0556 0
R0557 0
R0558 0      !               End of ARECCC.REQ
```

N 15  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_ \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 23 (2)

: 0559 0 REQUIRE 'REQ:ATCODE.REQ': ! ATABLE entry codes.

B C D E F G H I J K L M N B C D E F G H I J K L M N B C D E F G H I

R0560 0  
R0561 0      Version: 'V04-000'  
R0562 0  
R0563 0  
R0564 0  
R0565 0      \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R0582 0  
R0583 0  
R0584 0  
R0585 0  
R0586 0  
R0587 0      ++  
R0588 0      FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R0589 0  
R0590 0      ABSTRACT:  
R0591 0      Names for the actions associated with characters in the action table.  
R0592 0  
R0593 0      ENVIRONMENT: Transportable BLISS  
R0594 0  
R0595 0      AUTHOR: Rich Friday  
R0596 0  
R0597 0      CREATION DATE: 1978  
R0598 0  
R0599 0      MODIFIED BY:  
R0600 0  
R0601 0      004      REM00004      Ray Marshall      17-November-1983  
R0602 0      Added macro for defining the size and type of ATABLE. Also  
R0603 0      defined ATABLE LENGTH for use where it's length is involved  
R0604 0      in other calculations.  
R0605 0  
R0606 0      003      REM00003      Ray Marshall      7-November-1983  
R0607 0      Added A\_U ALPHA & A\_L ALPHA as part of the added support for  
R0608 0      DEC multinational character set.  
R0609 0  
R0610 0      002      KAD00002      Keith Dawson      07-Mar-1983  
R0611 0      Global edit of all modules. Updated module names, idents,  
R0612 0      copyright dates. Changed require files to BLISS library.  
R0613 0  
R0614 0      !--%()%  
R0615 0  
R0616 0      LITERAL      ! TRUE if the character is...

```
: R0617 0      A_SPACE      = 01;  | a space,  
: R0618 0      A_TAB        = 02;  | a tab,  
: R0619 0      A_FLAG        = 03;  | a flag,  
: R0620 0      A_CONTROL     = 04;  | an ASCII control character,  
: R0621 0      A_U LETTER   = 05;  | an upper-case letter,  
: R0622 0      A_L LETTER   = 06;  | a lower-case letter.  
: R0623 0      A_DIGIT       = 07;  | a digit,  
: R0624 0      A_INT ESC    = 08;  | a RUNOFF internal escape character (RINTES),  
: R0625 0      A_PUNCT        = 09;  | a punctuation mark;  
: R0626 0      A_OTHER        = 10;  | ...or anything else not covered above.  
: R0627 0      A_U_ALPHA     = 11;  | Uppercase multinational character  
: R0628 0      A_L_ALPHA     = 12;  | Lowercase multinational character  
: R0629 0  
: R0630 0      LITERAL      ACTION_COUNT = 12; ! Number of actions  
: R0631 0  
: R0632 0  
: R0633 0      LITERAL      atable_length = 256; ! Number of cells in ATABLE  
: R0634 0  
: R0635 0  
: R0636 0      MACRO       atable_definition =  
: MR0637 0      VECTOR [atable_length, BYTE]%;  
: R0638 0
```

```
0639 0
: U 0640 0 %IF DSRPLUS %THEN
: U 0641 0 REQUIRE 'REQ:ATTCC.REQ';      ! Completion codes for routines in ATTRIB
: 0642 0 %FI
: 0643 0
: 0644 0 REQUIRE 'REQ:BOOL.REQ';      ! TRUE & FALSE literals (only)
```

R0645 0  
R0646 0 Version: 'V04-000'  
R0647 0  
R0648 0  
R0649 0  
R0650 0  
R0651 0  
R0652 0  
R0653 0  
R0654 0  
R0655 0  
R0656 0  
R0657 0  
R0658 0  
R0659 0  
R0660 0  
R0661 0  
R0662 0  
R0663 0  
R0664 0  
R0665 0  
R0666 0  
R0667 0  
R0668 0  
R0669 0  
R0670 0  
R0671 0  
R0672 0  
R0673 0  
R0674 0  
R0675 0  
R0676 0  
R0677 0  
R0678 0  
R0679 0  
R0680 0  
R0681 0  
R0682 0  
R0683 0  
R0684 0  
R0685 0  
R0686 0  
R0687 0  
R0688 0  
R0689 0  
R0690 0  
R0691 0  
R0692 0  
R0693 0  
R0694 0  
R0695 0  
R0696 0  
\*\*\*\*\*  
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\*\*\*\*\*  
++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
Definitions of Boolean items TRUE and FALSE.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Rich Friday  
CREATION DATE: 1978  
MODIFIED BY:  
002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
--  
LITERAL  
TRUE = 1,  
FALSE = 0;  
!

End of BOOL.REQ

F 16  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 28  
(2)

: 0697 0 REQUIRE 'REQ:BRNRTY.REQ'; ! .BRN-format binary file record def's.

R0698 0  
R0699 0 Version: 'V04-000'  
R0700 0  
R0701 0  
R0702 0  
R0703 0 \*\*\*\*\*  
R0704 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R0721 0  
R0722 0  
R0723 0  
R0724 0  
R0725 0 ++  
R0726 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R0727 0  
R0728 0 ABSTRACT:  
R0729 0 Binary RuNoff file record type definitions  
R0730 0  
R0731 0 ENVIRONMENT: Transportable BLISS  
R0732 0  
R0733 0 AUTHOR: J.P. Kellerman  
R0734 0  
R0735 0 CREATION DATE: January 1982  
R0736 0  
R0737 0 MODIFIED BY:  
R0738 0  
R0739 0 003 KAD00003 Keith Dawson 07-Mar-1983  
R0740 0 Global edit of all modules. Updated module names, idents,  
R0741 0 copyright dates. Changed require files to BLISS library.  
R0742 0  
R0743 0 --  
R0744 0  
R0745 0  
R0746 0 File Identification Record Group  
R0747 0  
R0748 0  
R0749 0 LITERAL  
R0750 0 BRN\_FILE = -1, | Identifies file as .BRN format  
R0751 0 BRN\_IDENT = 2, | .BRN format revision level  
R0752 0 INDEX\_FORMAT = 2, | Index record group format revision level  
R0753 0 TOC\_FORMAT = 3, | Table of contents record group format revision level  
R0754 0 CROSSREF\_FORMAT = 1; | Cross reference record group format revision level

R0755 0  
R0756 0  
R0757 0 Record Group Header  
R0758 0  
R0759 0 A record group header identifies the following record group.  
R0760 0 This allows a utility program to skip record groups pertaining  
R0761 0 to other programs without having to know their structure.  
R0762 0  
R0763 0  
R0764 0 LITERAL  
R0765 0      BRN\_INDEX = 1;      | Identifies index record groups  
R0766 0      BRN\_CONTENTS = 2;      | Identifies table of contents record groups  
R0767 0      BRN\_CROSSREF = 3;      | Identifies cross reference record groups  
R0768 0  
R0769 0  
R0770 0 Cross Reference Record groups  
R0771 0  
R0772 0 LITERAL  
R0773 0      NEW\_CROSSREF = 1;      | Identification record group  
R0774 0      CROSSREF\_REFERENCEPOINT = 2;      | Reference point record group  
R0775 0  
R0776 0 ! End of BRNRTY.REQ

I 16

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15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742

\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 0777 0 REQUIRE 'REQ:CLHCC.REQ'; ! CLH.... status return codes

R0778 0  
R0779 0 Version: 'V04-000'  
R0780 0  
R0781 0  
R0782 0  
R0783 0  
R0784 0  
R0785 0  
R0786 0  
R0787 0  
R0788 0  
R0789 0  
R0790 0  
R0791 0  
R0792 0  
R0793 0  
R0794 0  
R0795 0  
R0796 0  
R0797 0  
R0798 0  
R0799 0  
R0800 0  
R0801 0  
R0802 0  
R0803 0  
R0804 0  
R0805 0  
R0806 0  
R0807 0  
R0808 0  
R0809 0  
R0810 0  
R0811 0  
R0812 0  
R0813 0  
R0814 0  
R0815 0  
R0816 0  
R0817 0  
R0818 0  
R0819 0  
R0820 0  
R0821 0  
R0822 0  
R0823 0  
R0824 0  
R0825 0  
R0826 0  
R0827 0  
R0828 0  
R0829 0  
R0830 0  
R0831 0  
R0832 0  
R0833 0  
R0834 0  
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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
Condition codes returned by CLH.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Rich Friday  
CREATION DATE: 1978  
MODIFIED BY:  
002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
!--  
LITERAL  
CLH\_NORMAL = 01, ! Normal for all requests.  
CLH\_CANT\_OPEN = 02, ! For bad CLH\_OPEN\_INPUT/OUTPUT.  
CLH\_END\_FILE = 02, ! End of file for CLH\_READ\_INPUT.  
CLH\_CANT\_READ = 03, ! Bad CLH\_READ\_INPUT.  
CLH\_TOO\_LONG = 04, ! Record too long on CLH\_READ\_INPUT.

K 16  
15-Sep-1984 23:07:40  
15-Sep-1984 22:49:55

VAX-11 Bliss-32 v4.0-742  
\$\_\$255\$DUA28:[RUNOFF.SRC]CLHCC.REQ;1 Page 33 (1)

R0835 0  
R0836 0 CLH\_NO\_SPACE = 05; ! No memory available.  
R0837 0  
R0838 0 LITERAL CLH\_CC\_COUNT = 05; ! Number of condition codes defined.  
R0839 0  
R0840 0  
R0841 0 ! End of CLHCC.REQ

L 16  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_ \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 0842 0 REQUIRE 'REQ:CLHOPS.REQ'; ! CLH\_... operation codes

R0843 0  
R0844 0  
R0845 0  
R0846 0  
R0847 0  
R0848 0  
R0849 0  
R0850 0  
R0851 0  
R0852 0  
R0853 0  
R0854 0  
R0855 0  
R0856 0  
R0857 0  
R0858 0  
R0859 0  
R0860 0  
R0861 0  
R0862 0  
R0863 0  
R0864 0  
R0865 0  
R0866 0  
R0867 0  
R0868 0  
R0869 0  
R0870 0  
R0871 0  
R0872 0  
R0873 0  
R0874 0  
R0875 0  
R0876 0  
R0877 0  
R0878 0  
R0879 0  
R0880 0  
R0881 0  
R0882 0  
R0883 0  
R0884 0  
R0885 0  
R0886 0  
R0887 0  
R0888 0  
R0889 0  
R0890 0  
R0891 0  
R0892 0  
R0893 0  
R0894 0  
R0895 0  
R0896 0  
R0897 0  
R0898 0  
R0899 0

Version: 'V04-000'

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
Definition of operations that can be performed by CLH.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:

006 KAD00006 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--

LITERAL

CLH_OPEN_INPUT	= 1.	Open primary input file.
CLH_OPEN_OUT	= 2.	Open output file.
CLH_CLOSE_INPUT	= 3.	Close current input file.
CLH_CLOSE_OUT	= 4.	Close output file.
CLH_READ_INPUT	= 5.	Read a record from current input file.
CLH_WRITE_OUT	= 6.	Write a record to output file, add CRLF.
CLH_PUSH	= 7.	Save current input-file status on stack.
CLH_POP	= 8.	Get back previous input-file status.
CLH_OPEN_REQ	= 9.	Open a nested file (.REQUIRE "file-spec").

```
R0900 0 CLH_CLOSE_REQ      = 10;  ! Close the top-most .REQUIRE file.  
R0901 0 CLH_OUT_NOCRLF    = 11;  ! Write a record, but don't add CRLF.  
R0902 0 CLH_CLOSE_DEL_OUT = 12;  ! Close and delete output file.  
R0903 0 CLH_OPEN_INIT     = 13;  ! Open initialization file.  
R0904 0  
R0905 0 LITERAL CLH_OPS_COUNT = 13;  
R0906 0  
R0907 0  
R0908 0 !  
          End of CLHOPS.REQ
```

1  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$\_255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 0909 0 REQUIRE 'REQ:CONVRT.REQ'; ! TCONVRT\_... def's (string conversion codes)

R0910 0  
R0911 0 Version: 'V04-000'  
R0912 0  
R0913 0  
R0914 0  
R0915 0 \*\*\*\*\*  
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R0933 0  
R0934 0 \*\*\*\*\*  
R0935 0  
R0936 0  
R0937 0 ++  
R0938 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R0939 0  
R0940 0 ABSTRACT:  
R0941 0 Literals defining names for how to do conversions from binary to the  
R0942 0 appropriate string type.  
R0943 0  
R0944 0 It's not possible to have a display code larger than 15 without  
R0945 0 changing the data structures defined in PAGEN.REQ.  
R0946 0  
R0947 0 OTHER NOTES:  
R0948 0 If the definitions of the literals defined here change (except for  
R0949 0 additions), look at DSPPAG to be sure nothing has been broken.  
R0950 0  
R0951 0 ENVIRONMENT: Transportable BLISS  
R0952 0  
R0953 0 AUTHOR: Rich Friday  
R0954 0  
R0955 0 CREATION DATE: 1978  
R0956 0  
R0957 0 MODIFIED BY:  
R0958 0  
R0959 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R0960 0 Global edit of all modules. Updated module names, idents,  
R0961 0 copyright dates. Changed require files to BLISS library.  
R0962 0  
R0963 0 !--  
R0964 0  
R0965 0 LITERAL  
R0966 0 TCONVRT\_DEC\_NOZ = 0, !Convert to decimal, no leading zeros.

```
: R0967 0 TCONVRT_DEC_ZER = 1; Convert to decimal, leading zeros.
: R0968 0 TCONVRT LET UPP = 2; Convert to letters, all upper-case.
: R0969 0 TCONVRT LET LOW = 3; Convert to letters, all lower-case.
: R0970 0 TCONVRT LET MIX = 4; Convert to letters, capitalize first one.
: R0971 0 TCONVRT ROM UPP = 5; Convert to roman numerals, all upper-case.
: R0972 0 TCONVRT ROM LOW = 6; Convert to roman numerals, all lower-case.
: R0973 0 TCONVRT ROM MIX = 7; Convert to roman numerals, capitalize first letter.
: R0974 0 TCONVRT OCT NOZ = 8; Convert to octal, no leading zeros.
: R0975 0 TCONVRT HEX NOZ = 9; Convert to hex, no leading zeros.
: R0976 0
: R0977 0 LITERAL
: R0978 0     TCONVRT LOW     = 0; Lowest total conversion code.
: R0979 0     TCONVRT HIGH    = 9; Highest total conversion code.
: R0980 0
: R0981 0 !
```

End of CONVRT.REQ

F 1  
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\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 40  
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```
0982 0
: U 0983 0 %IF DSRPLUS %THEN
: U 0984 0 REQUIRE 'REQ:CREFDS.REQ';
: 0985 0 %FI
: 0986 0
: 0987 0 REQUIRE 'REQ:DIGIT.REQ';      ! Macro to test if a character is a digit
```

R0988 0  
R0989 0 Version: 'V04-000'  
R0990 0  
R0991 0 \*\*\*\*\*  
R0992 0 \*  
R0993 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R1009 0 \* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.  
R1010 0 \*  
R1011 0 \*  
R1012 0 \*\*\*\*\*  
R1013 0  
R1014 0  
R1015 0 ++  
R1016 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R1017 0  
R1018 0 ABSTRACT:  
R1019 0 Macro to test if a character is a digit.  
R1020 0  
R1021 0 ENVIRONMENT: Transportable BLISS  
R1022 0  
R1023 0 AUTHOR: Rich Friday  
R1024 0  
R1025 0 CREATION DATE: 1978  
R1026 0  
R1027 0 MODIFIED BY:  
R1028 0  
R1029 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R1030 0 Global edit of all modules. Updated module names, idents,  
R1031 0 copyright dates. Changed require files to BLISS library.  
R1032 0  
R1033 0 --  
R1034 0  
R1035 0 MACRO  
MR1036 0 DIGIT(KHAR) =  
MR1037 0 (KHAR GEQ %C'0' and KCHAR LEQ %C'9')  
R1038 0 %;  
R1039 0  
R1040 0 ! End of DIGIT.REQ

H 1

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1041 0 !! REQUIRE 'REQ:DMDEFS.REQ';  
1042 0 REQUIRE 'REQ:ECC.REQ';  
: ! Dynamic-memory management definitions  
: Definitions for the Entity Counter/Caption Area

R1043 0  
R1044 0 Version: 'V04-000'  
R1045 0  
R1046 0 \*\*\*\*\*  
R1047 0 \*  
R1048 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R1065 0 \*  
R1066 0 \*  
R1067 0 \*\*\*\*\*  
R1068 0  
R1069 0  
R1070 0 ++  
R1071 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R1072 0  
R1073 0 ABSTRACT:  
R1074 0 Definitions for the ECC (Entity Counter/Caption area).  
R1075 0  
R1076 0 ENVIRONMENT: Transportable BLISS  
R1077 0  
R1078 0 AUTHOR: Keith Dawson  
R1079 0  
R1080 0 CREATION DATE: 1982  
R1081 0  
R1082 0 MODIFIED BY:  
R1083 0  
R1084 0 004 KFA00004 Ken Alden 07-Jul-1983  
R1085 0 Made the counter into a full integer.  
R1086 0  
R1087 0 003 KAD00003 Keith Dawson 07-Mar-1983  
R1088 0 Global edit of all modules. Updated module names, idents,  
R1089 0 copyright dates. Changed require files to BLISS library.  
R1090 0  
R1091 0 --  
R1092 0  
R1093 0 \$FIELD ECC\_FIELDS =  
R1094 0 SET  
R1095 0 ECC\$V\_OPTIONS = [\$SHORT\_INTEGER],  
R1096 0  
R1097 0 \$OVERLAY (ECC\$V\_OPTIONS)  
R1098 0  
R1099 0 ECC\$V\_BOLD = [\$BIT]. !Make entity caption bold.

```

R1100 0    ECC$V_UNDERLINE = [$BIT],      Underline entity caption.
R1101 0    ECC$V_UNNUMBERED= [$BIT],    Do not display counter for this entity.
R1102 0    ECC$V_BREAK   = [$BIT],      Start a new line after entity/CHAPTER/APPENDIX.
R1103 0    ECC$V_TOCPAGE = [$BIT],      Put a page number in the TOC.
R1104 0    ECC$V_PAGE    = [$BIT],      Start a new page before CHAPTER or APPENDIX.
R1105 0    ECC$V_STARTODD = [$BIT],     Start this chapter/appendix on an odd-numbered page.

R1106 0
R1107 0    $CONTINUE
R1108 0
R1109 0    ECC$H_RUNIN     = [$TINY_INTEGER], !Run in caption with text.
R1110 0
R1111 0    ECC$H_CASE      = [$TINY_INTEGER], !Case rules for caption (see values below).
R1112 0
R1113 0    ECC$H_POSITION   = [$TINY_INTEGER], !Placement of header (see values below).
R1114 0
R1115 0    ECC$H_AFTER     = [$SHORT_INTEGER], This many blank lines after header.
R1116 0    ECC$H_BEFORE    = [$SHORT_INTEGER], Skip this many lines before header.
R1117 0    ECC$H_BETWEEN   = [$SHORT_INTEGER], Skip this many lines between 'CHAPTER' and the title.
R1118 0    ECC$H_SPACES    = [$SHORT_INTEGER], Number of spaces between counter and caption.
R1119 0    ECC$H_TESTPAGE  = [$SHORT_INTEGER], Generate test-page for this many lines.
R1120 0    ECC$H_COUNTER   = [$INTEGER],      Counter for this entity.
R1121 0    ECC$H_DISPLAY_DESC = [$SHORT_INTEGER], RUNOFF display descriptor.
R1122 0    ECC$H_PRE_LEN   = [$SHORT_INTEGER], Before-counter text length.
R1123 0    ECC$H_PRE_PTR   = [$POINTER],      Before-counter text pointer.
R1124 0    ECC$H_POST_LEN  = [$SHORT_INTEGER], After-counter text length.
R1125 0    ECC$H_POST_PTR = [$POINTER],      After-counter text pointer.

R1126 0
R1127 0    TES;
R1128 0
R1129 0    LITERAL
R1130 0    ECC$K_LENGTH = $FIELD_SET_SIZE;
R1131 0
R1132 0    ! Values for ECC$H_CASE:
R1133 0    LITERAL
R1134 0    ECC$K_LEAVECASE = 0,           !Make entity caption initial-cap.
R1135 0    ECC$K_FIRSTCAP  = 1,           !Make entity caption initial-cap.
R1136 0    ECC$K_ALLCAP    = 2;           !Make caption all-caps.

R1137 0
R1138 0    ! Values for ECC$H_POSITION:
R1139 0    LITERAL
R1140 0    ECC$K_LEFT      = 0,           !Make the entity caption flush-left.
R1141 0    ECC$K_RIGHT     = 1,           !Make the entity caption flush-right.
R1142 0    ECC$K_CENTER    = 2;           Center entity caption.
R1143 0    ECC$K_ALTERNATE = 3;           (nyi) Alternate flush-left, flush-right.

R1144 0
R1145 0
R1146 0    ! Offsets of counters for example, figure, and table in the ECC structure
R1147 0    (Entity Counter / Caption area).
R1148 0
R1149 0    LITERAL
R1150 0    EXAMP_OFFSET  = 0,           Examples
R1151 0    FIGUR_OFFSET  = 1,           Figures
R1152 0    TABLE_OFFSET   = 2,           Tables
R1153 0    HCOLL_OFFSET  = 3,           Collecting headers
R1154 0    HL1_OFFSET    = 4,           HL 1
R1155 0    HL2_OFFSET    = 5,           HL 2
R1156 0    HL3_OFFSET    = 6,           HL 3

```

K 1  
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```
R1157 0      HL4_OFFSET      = 7,      ! HL 4
R1158 0      HL5_OFFSET      = 8,      ! HL 5
R1159 0      HL6_OFFSET      = 9,      ! HL 6
R1160 0      CHAP_OFFSET    = 10,     ! Chapters
R1161 0      APPEND_OFFSET  = 11;    ! Appendix

R1162 0
R1163 0      LITERAL
R1164 0      MAX_ECC_OFFSET = 11;

R1165 0
R1166 0      LITERAL
R1167 0      ! 3 SECC_BLOCKs for example, figure, table;
R1168 0      ! 1 for the Header-collecting block;
R1169 0      ! 6 for the header levels.
R1170 0      ! 1 for Chapters.
R1171 0      ! 1 for Appendix:
R1172 0      MAX_ECC = 3 + 1 + 6 + 1 + 1;

R1173 0
R1174 0      MACRO
R1175 0      SECC_BLOCK =
R1176 0      BLOCK [ECC$K_LENGTH] FIELD (ECC_FIELDS) %;
R1177 0
R1178 0
R1179 0      MACRO
R1180 0      SECC_BLOCKVECTOR =
R1181 0      BLOCKVECTOR [MAX_ECC, ECC$K_LENGTH] FIELD (ECC_FIELDS) %;
R1182 0      ! End of ECC.REQ
```

L 1  
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15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 46  
(2)

; 1183 0 REQUIRE 'REQ:FFDEFS.REQ'; ! FOO\_... opcodes and status values for FOOFILE

R1184 0  
R1185 0 Version: 'V04-000'  
R1186 0  
R1187 0 \*\*\*\*\*  
R1188 0 \*  
R1189 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R1206 0 \*  
R1207 0 \*  
R1208 0 \*\*\*\*\*  
R1209 0  
R1210 0  
R1211 0 ++  
R1212 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R1213 0  
R1214 0 ABSTRACT:  
R1215 0 Literals defining FOOFILE operations and return values.  
R1216 0  
R1217 0 ENVIRONMENT: Transportable BLISS  
R1218 0  
R1219 0 AUTHOR: Rich Friday  
R1220 0  
R1221 0 CREATION DATE: 1982  
R1222 0  
R1223 0 MODIFIED BY:  
R1224 0  
R1225 0 005 KAD00005 Keith Dawson 07-Mar-1983  
R1226 0 Global edit of all modules. Updated module names, idents,  
R1227 0 copyright dates. Changed require files to BLISS library.  
R1228 0  
R1229 0 --  
R1230 0  
R1231 0 LITERAL  
R1232 0 FOO\_INIT = 0, !Initialize FOOJOB.  
R1233 0 FOO\_OPIN = 1, !Open footnote file for input.  
R1234 0 FOO\_OPOU = 2, !Open footnote file for output.  
R1235 0 FOO\_READ = 3, !Read a record from footnote file.  
R1236 0 FOO\_WRIT = 4, !Write a record to the footnote file.  
R1237 0 FOO\_CLOS = 5, !Close the footnote file.  
R1238 0 FOO\_DELE = 6, !Delete the footnote file.  
R1239 0 FOO\_CLEAN= 7, !Discard footnotes that have been output.  
R1240 0 FOO\_RHDR = 8, !Read a record header.

N 1  
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15-Sep-1984 22:51:04

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```
R1241 0      FOO_PREAD= 9;      !Read a "pass-through" record.  
R1242 0      FOO_PWRIT= 10;    !Write a "pass-through" record.  
R1243 0  
R1244 0      LITERAL      FFOO_OP = 10;      !Highest operation code.  
R1245 0  
R1246 0  
R1247 0      LITERAL      FOO_NORMAL = 1,  
R1248 0          FOO_ENDFIL = 2,  
R1249 0          FOO_BAD = 3;      !Operation done ok.  
R1250 0          !End of file on write.  
R1251 0          !Couldn't perform operation.  
R1252 0      !      End of FFDEFS.REQ
```

B 2  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 49  
(2)

: 1253 0 REQUIRE 'REQ:FLGT.REQ'; ! FLaG Table items

R1254 0  
R1255 0 Version: 'V04-000'  
R1256 0  
R1257 0 \*\*\*\*\*  
R1258 0 \*  
R1259 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R1276 0 \*  
R1277 0 \*  
R1278 0 \*\*\*\*\*  
R1279 0  
R1280 0  
R1281 0 ++  
R1282 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R1283 0  
R1284 0 ABSTRACT:  
R1285 0 Flag table: values and status of flag characters.  
R1286 0  
R1287 0 ENVIRONMENT: Transportable BLISS  
R1288 0  
R1289 0 AUTHOR: Rich Friday  
R1290 0  
R1291 0 CREATION DATE: 1978  
R1292 0  
R1293 0 MODIFIED BY:  
R1294 0  
R1295 0 005 KFA00005 Ken Alden 21-Mar-1983  
R1296 0 For DSRPLUS: eliminated the passthrough flag.  
R1297 0  
R1298 0 004 KFA00004 Ken Alden 15-Mar-1983  
R1299 0 For DSRPLUS: added bits for passthrough flag.  
R1300 0  
R1301 0 003 KAD00003 Keith Dawson 07-Mar-1983  
R1302 0 Global edit of all modules. Updated module names, idents,  
R1303 0 copyright dates. Changed require files to BLISS library.  
R1304 0  
R1305 0 --

R1306 0 | In the following definitions, 3-character abbreviations are used for the  
R1307 0 | names of the flags:

abbre- viation	flag	abbre- viation	flag
COM	Comment	BLD	Bold
SUB	Substitute	SPA	Space
EFO	Endfootnote	IND	Index
CON	Control	HYP	Hyphenate
QUO	Accept (ne Quote)	OVR	Overstrike
UPP	Uppercase	SBX	Subindex
LOW	Lowercase	PER	Period
CAP	Capitalize	BRK	Break
UND	Underline	NPX	No-permute-index

R1322 0 |  
R1323 0 | LITERAL  
R1324 0 | FLAG\_COUNT = 18; ! Number of flags.

R1325 0 | LITERAL  
R1326 0 |  
R1327 0 | SUB\_FLAG = 0,  
R1328 0 | EFO\_FLAG = 1,  
R1329 0 | CON\_FLAG = 2,  
R1330 0 | QUO\_FLAG = 3,  
R1331 0 | UPP\_FLAG = 4,  
R1332 0 | LOW\_FLAG = 5,  
R1333 0 | CAP\_FLAG = 6,  
R1334 0 | UND\_FLAG = 7,  
R1335 0 | BLD\_FLAG = 8,  
R1336 0 | SPA\_FLAG = 9,  
R1337 0 | IND\_FLAG = 10,  
R1338 0 | HYP\_FLAG = 11,  
R1339 0 | OVR\_FLAG = 12,  
R1340 0 | SBX\_FLAG = 13,  
R1341 0 | COM\_FLAG = 14,  
R1342 0 | PER\_FLAG = 15,  
R1343 0 | BRK\_FLAG = 16,  
R1344 0 | NPX\_FLAG = 17;

R1345 0 |  
R1346 0 | LITERAL  
R1347 0 | FLAG\_ENABLED = 0,  
R1348 0 | FLAG\_CHARACTER = 1;

R1349 0 |  
R1350 0 | ! The FLAG\_TABLE structure does not need to use %UPVAL to be on -11s and VAX,  
R1351 0 | ! because the information there can be saved in single bytes.

R1352 0 | STRUCTURE

R1353 0 | FLAG\_TABLE[I,J;N=FLAG\_COUNT] =  
R1354 0 | [2 \* N \* %UPVAL]  
R1355 1 | (If J eql FLAG\_ENABLED  
R1356 2 | then FLAG\_TABLE + (I \* %UPVAL)  
R1357 0 | else FLAG\_TABLE + ( FLAG\_COUNT + I ) \* %UPVAL );

R1358 0 |  
R1359 0 | MACRO  
MR1360 0 | FLAG\_DEFINITION =  
R1361 0 | FLAG\_TABLE[FLAG\_COUNT];  
R1362 0 |

E 2  
15-Sep-1984 23:07:40  
15-Sep-1984 22:51:14

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; R1363 0 !

End of FLGT.REQ

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\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 53  
(2)

: 1364 0 REQUIRE 'REQ:FLIPCHARS.REQ'; ! FLIP\$K\_... special characters

R1365 0  
R1366 0 Version: 'V04-000'  
R1367 0  
R1368 0  
R1369 0  
R1370 0  
R1371 0  
R1372 0  
R1373 0  
R1374 0  
R1375 0  
R1376 0  
R1377 0  
R1378 0  
R1379 0  
R1380 0  
R1381 0  
R1382 0  
R1383 0  
R1384 0  
R1385 0  
R1386 0  
R1387 0  
R1388 0  
R1389 0  
R1390 0  
R1391 0  
R1392 0  
R1393 0  
R1394 0  
R1395 0  
R1396 0  
R1397 0  
R1398 0  
R1399 0  
R1400 0  
R1401 0  
R1402 0  
R1403 0  
R1404 0  
R1405 0  
R1406 0  
R1407 0  
R1408 0  
R1409 0  
R1410 0  
R1411 0  
R1412 0  
R1413 0  
R1414 0  
R1415 0  
R1416 0  
R1417 0  
R1418 0  
R1419 0  
R1420 0  
R1421 0  
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\* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.  
\*\*\*\*\*  
\*\*  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
This file contains the definitions of the FLIP special text characters.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: George Hetrick  
CREATION DATE: 19-Feb-1982  
MODIFIED BY:  
002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
--  
+ FLIP special characters, inserted into output file  
-  
SLITERAL  
FLIP\$K\_START\_BOLD = \$DISTINCT,  
FLIP\$K\_START\_UNDERLINE = \$DISTINCT,  
FLIP\$K\_END\_BOLD = \$DISTINCT,  
FLIP\$K\_END\_UNDERLINE = \$DISTINCT;

H 2  
15-Sep-1984 23:07:40  
15-Sep-1984 22:51:21

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; R1422 0 !

End of FLIPCHARS.REQ

1 2  
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: 1423 0 REQUIRE 'REQ:FLIPRECS.REQ'; ! FLIP macro, record, & field definitions and MAX\_LEVELS.

R1424 0  
R1425 0  
R1426 0  
R1427 0  
R1428 0  
R1429 0  
R1430 0  
R1431 0  
R1432 0  
R1433 0  
R1434 0  
R1435 0  
R1436 0  
R1437 0  
R1438 0  
R1439 0  
R1440 0  
R1441 0  
R1442 0  
R1443 0  
R1444 0  
R1445 0  
R1446 0  
R1447 0  
R1448 0  
R1449 0  
R1450 0  
R1451 0  
R1452 0  
R1453 0  
R1454 0  
R1455 0  
R1456 0  
R1457 0  
R1458 0  
R1459 0  
R1460 0  
R1461 0  
R1462 0  
R1463 0  
R1464 0  
R1465 0  
R1466 0  
R1467 0  
R1468 0  
R1469 0  
R1470 0  
R1471 0  
R1472 0  
R1473 0  
R1474 0  
R1475 0  
R1476 0  
R1477 0  
R1478 0  
R1479 0  
R1480 0

XTITLE 'FLIPRECS -- FLIP/RUNOFF record formats'  
Version: 'V04-000'  
\*\*\*\*\*  
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\*\*\*\*\*  
++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
This file documents the records emitted by RUNOFF for processing by FLIP.  
ENVIRONMENT:  
DSRPLUS  
AUTHOR: George C. Hetrick  
CREATION DATE: 1981  
MODIFIED BY:  
003 KAD00003 Keith Dawson 17-May-1983  
Made all - CODEs [\$TINY INTEGER]'s again. The reason for  
having changed to [\$INTEGER]'s in the first place has gone  
away: FLIP code is now more tightly conditionalized (for  
the benefit of TOPS-20 mainly).  
002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
--  
Xsbttl 'FLIP/RUNOFF record types';

```
R1481 0     $LITERAL
R1482 0     FLIP$K_INIT    = $DISTINCT,
R1483 0     FLIP$K_RNOTXT = $DISTINCT,
R1484 0     FLIP$K_TCXTXT = $DISTINCT,
R1485 0     FLIP$K_TCXXTN = $DISTINCT,
R1486 0     FLIP$K_TCXINI = $DISTINCT,
R1487 0     FLIP$K_TOCRD    = $DISTINCT,
R1488 0     FLIP$K_TOCTXT = $DISTINCT,
R1489 0     FLIP$K_TOCPAG = $DISTINCT,
R1490 0     FLIP$K_TOCHLI = $DISTINCT,
R1491 0     FLIP$K_TOCHL  = $DISTINCT,
R1492 0     FLIP$K_NEWPAG = $DISTINCT;
R1493 0
R1494 0     LITERAL
R1495 0     FLIP$K_VERSION = 1;
```

FLIPRECS -- FLIP/RUNOFF record formats  
INIT -- initial FLIP record

L 2  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:51:29 \_\$255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1 (2)  
Page 59

```
R1496 0 %sbttl 'INIT -- initial FLIP record';
R1497 0
R1498 0 $FIELD
R1499 0   $FLIPSINIT FIELDS = SET
R1500 0     INIT_CODE      = [$TINY_INTEGER],      ! record type
R1501 0     INIT_FLAGS     = [$BYTE],           ! various flags
R1502 0     $OVERLAY(INIT_FLAGS)
R1503 0     INIT_CONTENTS  = [$BIT],            ! was /CONTENTS specified
R1504 0     $CONTINUE
R1505 0     INIT_LEVEL     = [$SHORT_INTEGER]    ! FLIP version
R1506 0   TES:                      ! Size in UNITS
R1507 0
R1508 0 LITERAL
R1509 0   FLIP$K_INIT_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1510 0   FLIP$K_INIT_SIZE   = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1511 0
R1512 0 MACRO
R1513 0   $FLIP_INIT = BLOCK[FLIP$K_INIT_LENGTH] FIELD($FLIP$INIT_FIELDS)%;
R1514 0
```

FLIPRECS -- FLIP/RUNOFF record formats  
RNOTXT -- text record

M 2  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:51:29 \_\$255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1 Page 60 (3)

```
R1515 0 %sbttr 'RNOTXT -- text record';
R1516 0
R1517 0
R1518 0
R1519 0
R1520 0
R1521 0
R1522 0
R1523 0
R1524 0
R1525 0
R1526 0
R1527 0
R1528 0
R1529 0
R1530 0
R1531 0
R1532 0
R1533 0
R1534 0
R1535 0
R1536 0
R1537 0
R1538 0
R1539 0
MR1540 0
R1541 0
R1542 0

%sbttl 'RNOTXT -- text record';

$FIELD
$FLIP$RNOTXT_FIELDS1= SET
  RNOTXT_CODE      = [$TINY_INTEGER]
  RNOTXT_LENGTH    = [$SHORT_INTEGER]      ! record type
  ! length of data portion
  TES;

LITERAL
  FLIP$K_RNOTXT_BASELEN = $FIELD_SET_SIZE, ! Size in FULLWORDS
  FLIP$K_RNOTXT_BASESIZ = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS

$FIELD
$FLIP$RNOTXT_FIELDS2= SET
  RNOTXT_FILLER    = [$SUB_BLOCK(FLIP$K_RNOTXT_BASELEN)],
  RNOTXT_TEXT      = [$SUB_BLOCK(1000)] ! TEXT segment
  TES;

LITERAL
  FLIP$K_RNOTXT_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
  FLIP$K_RNOTXT_SIZE   = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS

MACRO
$FLIP_RNOTXT = BLOCK[FLIP$K_RNOTXT_LENGTH] FIELD($FLIP$RNOTXT_FIELDS1,
$FLIP$RNOTXT_FIELDS2);
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCTXT -- TOC text record

N 2  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:51:29 \_\$255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1 Page 61 (4)

```
R1543 0 %sbtll 'TOCTXT -- TOC text record';
R1544 0
R1545 0 $FIELD
R1546 0   $FLIP$TOCTXT_FIELDS1= SET
R1547 0     TOCTXT_CODE    = [$TINY_INTEGER],      ! record type
R1548 0     TOCTXT_MAJOR   = [$TINY_INTEGER],      ! major code
R1549 0     TOCTXT_MINOR   = [$TINY_INTEGER],      ! minor code
R1550 0     TOCTXT_LENGTH  = [$INTEGER]           ! length of data portion
R1551 0   TES;
R1552 0
R1553 0 LITERAL
R1554 0   FLIP$K_TOCTXT_BASELEN = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1555 0   FLIP$K_TOCTXT_BASESIZ = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1556 0
R1557 0
R1558 0 $FIELD
R1559 0   $FLIP$TOCTXT_FIELDS2= SET
R1560 0     TOCTXT_FILLER  = [$SUB_BLOCK(FLIP$K_TOCTXT_BASELEN)],
R1561 0     TOCTXT_TEXT    = [$SUB_BLOCK(1000)] ! TEXT segment
R1562 0   TES;
R1563 0
R1564 0
R1565 0 LITERAL
R1566 0   FLIP$K_TOCTXT_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1567 0   FLIP$K_TOCTXT_SIZE = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1568 0
R1569 0 MACRO
R1570 0   $FLIP_TOCTXT = BLOCK[FLIP$K_TOCTXT_LENGTH] FIELD($FLIP$TOCTXT_FIELDS1,
R1571 0   $FLIP$TOCTXT_FIELDS2)%;
R1572 0
```

```
R1573 0 %sbtll 'TOCRD -- TOC descriptor';
R1574 0
R1575 0 $FIELD
R1576 0   $FLIP$TOCRD_FIELDS = SET
R1577 0     TOCRD_CODE      = [$TINY_INTEGER],      | record type
R1578 0     TOCRD_MAJOR     = [$INTEGER],        | major code
R1579 0     TOCRD_MINOR     = [$INTEGER]         | minor code
R1580 0   TES:
R1581 0
R1582 0 LITERAL
R1583 0   FLIP$K_TOCRD_LENGTH = $FIELD_SET_SIZE,  | Size in FULLWORDS
R1584 0   FLIP$K_TOCRD_SIZE  = %UPVAL*$FIELD_SET_SIZE; | Size in UNITS
R1585 0
R1586 0 MACRO
R1587 0   $FLIP_TOCRD = BLOCK[FLIP$K_TOCRD_LENGTH] FIELD($FLIP$TOCRD_FIELDS)%;
R1588 0
```

```
R1589 0 %sbttl 'TOCPAG -- TOC page record';
R1590 0
R1591 0 $FIELD
R1592 0   $FLIP$TOCPAG_FIELDS = SET
R1593 0     TOCPAG_CODE    = [$TINY_INTEGER],      ! record type
R1594 0     TOCPAG_PAGENO  = [$SUB_BLOCK(PAGE_SCT_SIZE)]      ! page number segment
R1595 0
R1596 0   TES;
R1597 0
R1598 0 LITERAL
R1599 0   FLIP$K_TOCPAG_LENGTH = $FIELD_SET_SIZE,      ! Size in FULLWORDS
R1600 0   FLIP$K_TOCPAG_SIZE = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1601 0
R1602 0 MACRO
R1603 0   $FLIP_TOCPAG = BLOCK[FLIP$K_TOCPAG_LENGTH] FIELD($FLIP$TOCPAG_FIELDS)%;
R1604 0
R1605 0
```

```
: R1606 0 %sbttl 'TCXXTN -- index';
: R1607 0
: R1608 0
: R1609 0 $FIELD
: R1610 0     $FLIP$TCXXTN_FIELDS = SET
: R1611 0     TCXXTN_CODE      = [$TINY_INTEGER],      ! record type
: R1612 0     SALIGN(FULLWORD)
: R1613 0     TCXXTN_XTN      = [$INTEGER],          ! transaction type
: R1614 0     TCXXTN_SCT      = [$SUB_BLOCK(PAGE_SCT_SIZE)]
: R1615 0                           ! page number segment
: R1616 0
: R1617 0
: R1618 0     TES:
: R1619 0     LITERAL
: R1620 0     FLIP$K_TCXXTN_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
: R1621 0     FLIP$K_TCXXTN_SIZE = %UPVAL*$FIELD_SET_SIZE;! Size in UNITS
: R1622 0
: R1623 0     MACRO
: R1624 0     $FLIP_TCXXTN = BLOCK[FLIP$K_TCXXTN_LENGTH] FIELD($FLIP$TCXXTN_FIELDS)%;
```

```
R1625 0 %sbttl 'TOCHLI -- TOC header level info record';
R1626 0
R1627 0 $FIELD
R1628 0   $FLIP$TOCHLI_FIELDS = SET
R1629 0     TOCHLI_CODE = [$TINY_INTEGER], ! record type
R1630 0     TOCHLI_HLLIST = [$SUB_BLOCK(2+MAX_LEVELS)], ! header level info
R1631 0     TOCHLI_HLDSP = [$SUB_BLOCK(MAX_LEVELS)] ! header level display info
R1632 0
R1633 0   TES;
R1634 0
R1635 0
R1636 0 LITERAL
R1637 0   FLIP$K_TOCHLI_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1638 0   FLIP$K_TOCHLI_SIZE = %UPVAL*$FIELD_SET_SIZE;! Size in UNITS
R1639 0
R1640 0 MACRO
R1641 0   $FLIP_TOCHLI = BLOCK[FLIP$K_TOCHLI_LENGTH] FIELD($FLIP$TOCHLI_FIELDS)%;
```

FLIPRECS -- FLIP/RUNOFF record formats  
TCXINI -- Index Header record

F 3  
15-Sep-1984 23:07:40  
15-Sep-1984 22:51:29

VAX-11 Bliss-32 V4.0-742  
\$\_255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1

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(9)

```
R1642 0 %sbttl 'TCXINI -- Index Header record';
R1643 0
R1644 0 $FIELD
R1645 0   $FLIP$TCXINI_FIELDS = SET
R1646 0     TCXINI_CODE    = [$TINY_INTEGER],      ! record type
R1647 0     TCXINI_HEADER  = [$INTEGER]          ! TCX format indicator
R1648 0     TES;
R1649 0
R1650 0 LITERAL
R1651 0   FLIP$K_TCXINI_LENGTH = $FIELD_SET_SIZE, ! Size in FULLWORDS
R1652 0   FLIP$K_TCXINI_SIZE   = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1653 0
R1654 0 MACRO
R1655 0   $FLIP_TCXINI = BLOCK[FLIP$K_TCXINI_LENGTH] FIELD($FLIP$TCXINI_FIELDS)%;
R1656 0
```

```
R1657 0 %sbttl 'TCXTXT -- Index TEXT record';
R1658 0
R1659 0 $FIELD
R1660 0   $FLIP$TCXTXT_FIELDS1 = SET
R1661 0     TCXTXT_CODE      = [$TINY_INTEGER],           ! record type
R1662 0     $ALIGN(FULLWORD)
R1663 0     TCXTXT_ENTRY     = [$INTEGER],            ! ENTRY flag
R1664 0     TCXTXT_LENGTH    = [$INTEGER],            ! length of data
R1665 0     TCXTXT_XTN      = [$INTEGER],            ! transaction number
R1666 0     TCXTXT_BAR      = [$INTEGER]             ! change bar flag
R1667 0   TES:
R1668 0
R1669 0 LITERAL
R1670 0   FLIP$K_TCXTXT_BASELEN = $FIELD_SET_SIZE,   ! Size in FULLWORDS
R1671 0   FLIP$K_TCXTXT_BASESIZ = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1672 0
R1673 0 $FIELD
R1674 0   $FLIP$TCXTXT_FIELDS2 = SET
R1675 0     TCXTXT_DUMMY     = [$SUB_BLOCK(FLIP$K_TCXTXT_BASELEN)],
R1676 0     TCXTXT_TEXT      = [$SUB_BLOCK(1000)] ! text of entry
R1677 0   TES:
R1678 0
R1679 0 LITERAL
R1680 0   FLIP$K_TCXTXT_LENGTH = $FIELD_SET_SIZE,   ! Size in FULLWORDS
R1681 0   FLIP$K_TCXTXT_SIZE  = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1682 0
R1683 0 MACRO
R1684 0   $FLIP_TCXTXT = BLOCK[FLIP$K_TCXTXT_LENGTH] FIELD($FLIP$TCXTXT_FIELDS1,
R1685 0           $FLIP$TCXTXT_FIELDS2)%;
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

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15-Sep-1984 23:07:40  
15-Sep-1984 22:51:29

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]FLIPRECS.REQ;1

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```
R1686 0 %sbttl 'TOCHL -- HL indicator record';
R1687 0
R1688 0 SF ELD
R1689 0   $FLIP$TOCHL_FIELDS = SET
R1690 0     TOCHL_CODE      = [$TINY_INTEGER]      ! record type
R1691 0     TES;
R1692 0
R1693 0 LITERAL
R1694 0   FLIP$K_TOCHL_LENGTH = $FIELD_SET_SIZE. ! Size in FULLWORDS
R1695 0   FLIP$K_TOCHL_SIZE = %UPVAL*$FIELD_SET_SIZE; ! Size in UNITS
R1696 0
R1697 0 MACRO
R1698 0   $FLIP_TOCHL = BLOCK[FLIP$K_TOCHL_LENGTH] FIELD($FLIP$TOCHL_FIELDS)%;
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

1 3  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 69 (2)

: 1699 0 REQUIRE 'REQ:FNCT.REQ'; ! Footnote control table

R1700 0  
R1701 0  
R1702 0  
R1703 0  
R1704 0  
R1705 0  
R1706 0  
R1707 0  
R1708 0  
R1709 0  
R1710 0  
R1711 0  
R1712 0  
R1713 0  
R1714 0  
R1715 0  
R1716 0  
R1717 0  
R1718 0  
R1719 0  
R1720 0  
R1721 0  
R1722 0  
R1723 0  
R1724 0  
R1725 0  
R1726 0  
R1727 0  
R1728 0  
R1729 0  
R1730 0  
R1731 0  
R1732 0  
R1733 0  
R1734 0  
R1735 0

Version: 'V04-000'

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT: Footnote control table.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Rich Friday CREATION DATE: 1978

R1736 0  
R1737 0  
R1738 0  
R1739 0  
R1740 0  
R1741 0  
R1742 0  
R1743 0  
R1744 0  
R1745 0  
R1746 0  
R1747 0  
R1748 0  
R1749 0  
R1750 0  
R1751 0  
R1752 0

MODIFIED BY:

004 RER00004 Ron Randall 05-Apr-1983  
For DSRPLUS: For footnote numbering, added  
fnct\_first\_line and fnct\_number\_l/r.

003 RER00003 Ron Randall 27-Mar-1983  
For DSRPLUS:  
Added fnct\_numbering and fnct\_number to indicate numbering  
of footnotes and to hold the number of the current footnote  
on this page.

002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

!--

R1753 0

MACRO

Number of unexpanded footnotes waiting to be output.  
fnct\_count = fnct [0] %,  
Number of unexpanded footnotes on or before current page.  
fnct\_ready = fnct [1] %,  
The "n" from .FOOTNOTE n (zero if not given).  
fnct\_n = fnct [2] %,  
Number of expanded footnotes present in these tables.  
fnct\_old = fnct [3] %,  
This many footnotes are attached to lines not yet output.  
fnct\_waiting = fnct [4] %,  
TRUE between .FOOTNOTE and .END FOOTNOTE.  
fnct\_collecting = fnct [5] %,  
TRUE if putting a footnote out onto a page.  
fnct\_expanding = fnct [6] %,  
TRUE if numbering footnotes.  
fnct\_numbering = fnct [7] %,  
TRUE if building first line of a numbered footnote.  
fnct\_first\_line = fnct [8] %,  
Left digit of the current footnote in this chapter.  
fnct\_number\_l = fnct [9] %,  
Right digit of the current footnote in this chapter.  
fnct\_number\_r = fnct [10] %,  
Current footnote in this chapter.  
fnct\_number = fnct [11] %;

LITERAL

Number of words of control information in these tables.  
fnct\_control = 12,  
Maximum number of footnotes that can be noted in these tables.

```
R1810 0      !
R1811 0      fnct_max          = 20;
R1812 0
R1813 0
R1814 0
R1815 0      All footnote control information saved in this vector.
R1816 0
R1817 0      fnct_definition = VECTOR [fnct_control] %;
R1818 0
R1819 0
R1820 0
R1821 0      Sizes of individual footnotes. There are .fnct_count + .fnct_old
R1822 0      entries, of which only the last .fnct_count are useful; of these,
R1823 0      it's ok to output at most .fnct_ready of them right now.
R1824 0      (The extra position allocated as a one-word work area.)
R1825 0
R1826 0      fn_ext_size_definition = VECTOR [fnct_max + 1] %;
R1827 0
R1828 0
R1829 0
R1830 0      Number of TSF/MRA pairs in each saved footnote.
R1831 0
R1832 0      fn_int_size_definition = VECTOR [fnct_max + 1] %;
R1833 0
R1834 0      ! End of fnct.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

N 3

15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 1835 0 REQUIRE 'REQ:FOOREC.REQ'; ! FOOREC\_... items (for FN record headers)

Version: 'V04-000'

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FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
FOOREC.REQ defines the format of record headers for records written  
during footnote processing to the footnote temporary files, 00%RNO.TMP.  
Each record header gives some cursory information about the record that  
follows it. Such records are, typically, a TSF, an MRA, or "pass-  
through" information intended for indexing or table of contents.

Note that FOOREC ADDRESS, although allocated as part of FOOREC, is  
never read or written. Instead, FOO\_PREAD, on reading a "pass-  
through" record, returns the address of the information there.  
FOO\_PWRIT uses that to determine where the information to be written  
is stored.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1982

MODIFIED BY:

002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS [library].

--

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

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15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742 Page 76  
15-Sep-1984 22:51:47 -\$255\$DUA28:[RUNOFF.SRC]FOOREC.REQ;1 (1)

```

R1893 0 MACRO
R1894 0   FOOREC_MAJOR_TYPE  = FOOREC [0]%,      The major record type (required information).
R1895 0   FOOREC_MINOR_TYPE = FOOREC [1]%,      The minor record type (optional information).
R1896 0   FOOREC_RECORD_SIZE = FOOREC [2]%,    Number of words in data record that follows (required information).
R1897 0   FOOREC_XTN_PTR   = FOOREC [3]%,    If not zero, then it's the number of the word in the record where
R1898 0                                         a transaction number is stored.
R1899 0   FOOREC_ADDRESS   = FOOREC [4]%;     Location of information read/written.

R1900 0
R1901 0 LITERAL
R1902 0   FOOREC_SIZE      = 4;                  !Number of words in the record header.

R1903 0
R1904 0 MACRO
R1905 0   FOOREC_DEFINITION = VECTOR [FOOREC_SIZE + 1] %;

R1906 0
R1907 0
R1908 0 !Here are the major and minor record types.
R1909 0 LITERAL
R1910 0   FOOREC_MAJ_TSF      = 0,                  !The record is a TSF data structure.
R1911 0   FOOREC_MAJ_MRA      = 1,                  !The record is an MRA data structure.
R1912 0   FOOREC_MAJ_PASS     = 2,                  !"Pass-through" information.
R1913 0   FOOREC_MIN_INDEX    = 0,                  Indexing information.
R1914 0   FOOREC_MIN_TOC      = 1,                  Table of contents information.
R1915 0   FOOREC_MIN_TEXT     = 2;                  !Something to do with normal text.

R1916 0
R1917 0 LITERAL
R1918 0   FOOREC_MAX_MAJ     = 2;                  !The largest major record type.
R1919 0   FOOREC_MAX_MIN     = 2;                  !The largest minor record type.

R1920 0
R1921 0 !

```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

D 4  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 77  
(2)

: 1922 0 REQUIRE 'REQ:FRMSTK.REQ'; ! Codes for .LS & .NT context save stack

R1923 0  
R1924 0 Version: 'V04-000'  
R1925 0  
R1926 0  
R1927 0  
R1928 0  
R1929 0  
R1930 0  
R1931 0  
R1932 0  
R1933 0  
R1934 0  
R1935 0  
R1936 0  
R1937 0  
R1938 0  
R1939 0  
R1940 0  
R1941 0  
R1942 0  
R1943 0  
R1944 0  
R1945 0  
R1946 0  
R1947 0  
R1948 0  
R1949 0  
R1950 0  
R1951 0  
R1952 0  
R1953 0  
R1954 0  
R1955 0  
R1956 0  
R1957 0  
R1958 0  
R1959 0  
R1960 0  
R1961 0  
R1962 0  
R1963 0  
R1964 0  
R1965 0  
R1966 0  
R1967 0  
R1968 0  
R1969 0  
R1970 0  
R1971 0  
R1972 0  
R1973 0  
R1974 0  
R1975 0  
R1976 0  
R1977 0  
R1978 0  
R1979 0

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
Definitions related to the data stack on which formatting information  
is saved by the .NOTE and .LIST commands. Information is removed by  
.END NOTE and .END LIST commands.  
ENVIRONMENT: Compatible BLISS  
AUTHOR: Rich Friday  
CREATION DATE: 1978  
MODIFIED BY:  
003 KAD00003 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
--  
LITERAL FRMSTK\_LIMIT = CL\_DEFAULT\_SIZE;  
! Maximum depth of the stack. It is 15 at  
! this point; but the actual value is kept  
! only in CLIST.REQ.  
LITERAL FRMSTK\_FILL = 01, ! A copy of SCA\_FILL  
FRMSTK\_JUSTIFY = 02, ! A copy of SCA\_JUSTIFY

R1980 0 FRMSTK\_RM = 03; ! A copy of SCA\_RM  
R1981 0 FRMSTK\_LM = 04; ! A copy of SCA\_LM  
R1982 0 FRMSTK\_SPACING = 05; ! A copy of SCA\_SPACING  
R1983 0 FRMSTK\_COMMAND = 06; ! The handler code for the command responsible for this entry  
R1984 0 FRMSTK\_ISEQN = 07; ! The input sequence number for the command  
R1985 0 FRMSTK\_IPAGEN = 08; ! The input page number for the command  
R1986 0 FRMSTK\_FSPECP = 09; ! A reference to the file-spec in which the command occurred.  
R1987 0 FRMSTK\_FSPECC = 10; ! The length of the file-spec in which the command occurred.  
R1988 0 FRMSTK\_REQ\_D = 11; ! The .REQUIRE nesting level in effect  
R1989 0 FRMSTK\_CROCK = 12; ! A copy of SCA\_CROCK  
R1990 0 FRMSTK\_DO\_NBITS = 13; ! A copy of SCA\_DO\_NBITS  
R1991 0 FRMSTK\_KER = 14; ! A copy of SCA\_KER  
R1992 0 FRMSTK\_INDEX = 15; ! A copy of SCA\_INDEX.  
R1993 0  
R1994 0 LITERAL  
R1995 0 FRMSTK\_ITEM\_CNT = 15; ! Number of pieces of info per entry  
R1996 0  
R1997 0 !One more entry is allocated than requested so than the routine  
R1998 0 !LIT (process literals) can save information.  
R1999 0 STRUCTURE  
R2000 0 FORM STACK[I,J;N=FRMSTK\_ITEM\_CNT,M=FRMSTK\_LIMIT] =  
R2001 0 [%UPVAL\*( N\*(M + 1) )]  
R2002 0 (FORM\_STACK + %UPVAL\*( (I - 1)\*N + J - 1) );  
R2003 0  
R2004 0 ! End of FRMSTK.REQ

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

6 4  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 80  
(2)

: 2005 0 REQUIRE 'REQ:FSPACK.REQ'; ! FIXED\_STRING structure & FS\_... macros

R2006 0  
R2007 0      Version: 'V04-000'  
R2008 0  
R2009 0  
R2010 0  
R2011 0      \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R2028 0  
R2029 0  
R2030 0  
R2031 0  
R2032 0  
R2033 0  
R2034 0      ++  
R2035 0      FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R2036 0  
R2037 0      ABSTRACT:  
R2038 0      Macros to manipulate FIXED\_STRINGS: transportable, fixed-length  
R2039 0      strings.  
R2040 0  
R2041 0      ENVIRONMENT: Transportable BLISS  
R2042 0  
R2043 0      AUTHOR: Rich Friday  
R2044 0  
R2045 0      CREATION DATE: 1978  
R2046 0  
R2047 0      MODIFIED BY:  
R2048 0      002      KAD00002      Keith Dawson      07-Mar-1983  
R2049 0      Global edit of all modules. Updated module names, idents,  
R2050 0      copyright dates. Changed require files to BLISS library.  
R2051 0  
R2052 0      --  
R2053 0  
R2054 0  
R2055 0      +  
R2056 0      FIXED STRING is a structure that contains a string of an expected maximum  
R2057 0      length, plus additional locations to contain information related to the  
R2058 0      status of the string.  
R2059 0  
R2060 0      -  
R2061 0      STRUCTURE  
R2062 0      fixed\_string[i;n=1] =  
R2063 0      [4\*XUPVAL + CH\$ALLOCATION(N\*XUPVAL)]  
R2064 0      (fixed\_string - XUPVAL\*( 1 - I ) );

```
R2063 0
R2064 0
R2065 0
R2066 0
R2067 0
R2068 0
R2069 0
R2070 0
R2071 0
R2072 0
R2073 0
R2074 0
R2075 0
R2076 0
MR2077 0
MR2078 0
MR2079 0
MR2080 0
MR2081 0
MR2082 0
R2083 0
R2084 0
R2085 0
R2086 0
R2087 0
R2088 0
MR2089 0
MR2090 0
R2091 0
R2092 0
MR2093 0
MR2094 0
R2095 0
R2096 0
MR2097 0
MR2098 0
R2099 0
R2100 0
MR2101 0
MR2102 0
R2103 0
R2104 0
R2105 0
R2106 0
R2107 0
R2108 0
MR2109 0
MR2110 0
MR2111 0
MR2112 0
MR2113 0
MR2114 0
R2115 0
R2116 0
R2117 0
R2118 0
R2119 0

  + The following literals are names for the fields allocated above. These
  names are not to be used by a user.
  -
LITERAL
  FS__FCP      = 01,    ! CH$PTR to first character position.
  FS__NCP      = 02,    ! CH$PTR to next character position.
  FS__MAX      = 03,    ! Capacity of the counted string.
  FS__LEN      = 04;    ! Current length.

  + FS_ALLOCATE is used to allocate and initialize a fixed-length string.
  -
MACRO
  fs_allocate (fs_name,fs_maxl) =
    fs_name:fixed_string [fs_maxl]
    INITIAL (0,
              0,
              fs_maxl,
              0)
  %

  + Control information is accessed via the following macros.
  -
MACRO
  fs_start (fs_name) =
    fs_name [fs__fcp]
  %
  fs_next (fs_name) =
    fs_name [fs__ncp]
  %
  fs_maxsize (fs_name) =
    fs_name [fs__max]
  %
  fs_length (fs_name) =
    fs_name [fs__len]
  %

  + FS_INIT initializes a fixed-length string to the null string.
  -
MACRO
  fs_init (fs_name) =
    BEGIN
      fs_length (fs_name)      = 0;
      fs_start (fs_name)       = CH$PTR (fs_name [5]);
      fs_next (fs_name)        = .fs_start (fs_name);
    END
  %

  + FS_WCHAR puts a character into the fixed-length string.
  -
```

```
R2120 0
MR2121 0
MR2122 0
MR2123 0
MR2124 0
MR2125 0
R2126 0
R2127 0
R2128 0
R2129 0
R2130 0
R2131 0
R2132 0
MR2133 0
MR2134 0
MR2135 0
MR2136 0
MR2137 0
R2138 0
R2139 0
R2140 0

MACRO
  fs_wchar (fs_name,khar)  =
  BEGIN
    CH$WCHAR_A (khar, fs_next (fs_name));
    fs_length (fs_name) = .fs_length (fs_name) + 1; !Write character and advance pointer.
  END
  %;

+ FS_RCHAR gets a character from the fixed-length string.
- MACRO
  fs_rchar (fs_name,khar)  =
  BEGIN
    khar = CH$RCHAR_A (fs_next (fs_name));
    fs_length (fs_name) = .fs_length (fs_name) - 1; !Read character and advance pointer.
  END
  %;

!           End of FSPACK.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

K 4  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 84  
(2)

: 2141 0 REQUIRE 'REQ:GCA.REQ'; ! GCA (General Control Array) definitions

R2142 0 GCA.REQ Definitions pertaining to the General Control Area (GCA)  
R2143 0 IDENT 026

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R2169 0 ++  
R2170 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

R2171 0 ABSTRACT:  
R2172 0 Definitions for the GCA (Global Control Area). Initialized by  
R2173 0 DOOPTS from command-line information.

R2174 0 ENVIRONMENT: Transportable BLISS

R2175 0 AUTHOR: Rich Friday

R2176 0 CREATION DATE: 1978

R2177 0 MODIFIED BY:

R2178 0 026 REM00026 Ray Marshall 16-May-1983  
R2179 0 Added support for outputting output lines numbers by adding  
R2180 0 another macro: GCA\_CMD\_05Q

R2181 0 025 REM00025 Ray Marshall 16-November-1983  
R2182 0 Added macros so that Ken's SAVRES module can load cells with  
R2183 0 them instead of using numeric offsets. They have the string  
R2184 0 "\_f\_" within them.

R2185 0 024 KFA00024 Ken Alden 10-Oct-1983  
R2186 0 Put gca\_cmd\_pages in the right place.

R2187 0 023 KFA00023 Ken Alden 06-Oct-1983  
R2188 0 Added gca\_cmd\_pages to signal the /pages qualifier.

R2199 0 022 KFA00022 Ken Alden 27-Jul-1983  
 R2200 0 Added gca\_flag\_cmd to SAVE list.  
 R2201 0 021 KFA00021 Ken Alden 15-Jul-1983  
 R2202 0 Added gca\_do\_cont\_already, gca\_do\_index\_already.  
 R2203 0 020 KFA00020 Ken Alden 27-Jun-1983  
 R2204 0 Added gca\_cref\_errcnt to the top eight bits of black\_box.  
 R2205 0 019 KFA00019 Ken Alden 13-Jun-1983  
 R2206 0 Made use of GCA[45] for flaging /down line skipping. Used in  
 R2207 0 TOPPAG and USKIPL.  
 R2208 0 018 KAD00018 Keith Dawson 12-May-1983  
 R2209 0 Use 16 bits each for page, index, contents, cref counts.  
 R2210 0 017 KAD00017 Keith Dawson 21-Mar-1983  
 R2211 0 Add bits for LN01 output options.  
 R2212 0 016 KFA00016 Ken Alden 16-Mar-1983  
 R2213 0 Save/restore now permitted in DSR.  
 R2214 0 015 KAD00015 Keith Dawson 07-Mar-1983  
 R2215 0 Global edit of all modules. Updated module names, idents,  
 R2216 0 copyright dates. Changed require files to BLISS library.  
 R2217 0  
 R2218 0  
 R2219 0  
 R2220 0  
 R2221 0  
 R2222 0  
 R2223 0  
 R2224 0  
 R2225 0  
 R2226 0  
 R2227 0  
 R2228 0  
 R2229 0  
 R2230 0  
 R2231 0  
 R2232 0  
 R2233 0  
 R2234 0  
 R2235 0  
 R2236 0  
 R2237 0  
 R2238 0  
 R2239 0  
 R2240 0  
 R2241 0  
 R2242 0  
 R2243 0  
 R2244 0  
 R2245 0  
 R2246 0  
 R2247 0  
 R2248 0  
 R2249 0  
 R2250 0  
 R2251 0  
 R2252 0  
 R2253 0  
 R2254 0  
 R2255 0

## MACRO

gca\_com\_start = GCA[ 00 ]%, !A CH\$PTR to the first character of the  
 current command (usually it's a '.')  
 gca\_autopara = .GCA[ 01 ]%, !(SAVEALL)True if user said .AUTOPARAGRAPH  
 gca\_f\_autopara = GCA[ 01 ]%, !(SAVEALL)True if user said .AUTOPARAGRAPH  
 gca\_autosubt = .GCA[ 02 ]%, !(SAVEALL)True if user said .AUTOSUBTITLE  
 gca\_f\_autosubt = GCA[ 02 ]%, !(SAVEALL)True if user said .AUTOSUBTITLE  
 gca\_autotabl = .GCA[ 03 ]%, !(SAVEALL)True if user said .AUTOTABLE  
 gca\_f\_autotabl = GCA[ 03 ]%, !(SAVEALL)True if user said .AUTOTABLE  
 gca\_autojust = .GCA[ 04 ]%, !(SAVEALL)True if user said .AUTOJUSTIFY  
 gca\_f\_autojust = GCA[ 04 ]%, !(SAVEALL)True if user said .AUTOJUSTIFY  
 gca\_bars = (GCA[05])<BAR-->%, !GCA BARS ENAB & GCA BARS ON.  
 gca\_bars\_enab = (GCA[06])<BAR-->%, !Controlled by .ENAB[E/.DISABLE BAR.  
 gca\_bars\_on = (GCA[07])<BAR-->%, !Controlled by .BEGIN/.END BAR.  
 gca\_ever\_bars = (GCA[08])<BAR-->%, !True if change bars ever enabled.  
 gca\_draft\_f = GCA[ 09 ]%, If user said /DEBUG, the character to be used as draft flag (from .VARIABLE  
 gca\_chapt = GCA[ 10 ]%, True if document contains chapters/appendices  
 gca\_twidth\_36 = GCA[ 11 ]%, TOPS-20 terminal wrap width (DSRPLUS only).  
 gca\_concat = GCA[ 12 ]%, True if .NO SPACE is pending.  
 gca\_cmd\_msg = GCA[ 13 ]%, Routing code for error messages  
 gca\_lit\_count = GCA[ 14 ]%, If a counted literal, the # of lines.  
 gca\_pchax = GCA[ 15 ]%, True if a .NUMBER CHAPTER or .NUMBER APPENDIX command has already set up NP  
 gca\_tescape\_36 = GCA[ 16 ]%, TOPS-20 terminal escape characteristics (DSRPLUS only)  
 gca\_cmd\_nbits = GCA[ 17 ]%, Ultimate controls for miscellaneous functions.  
 gca\_lit\_flag = GCA[ 18 ]%, status of .GCA\_FLAG\_CMD during literal processing.  
 gca\_cmd\_lstbts = GCA[ 19 ]%, Ultimate controls for misc functions.  
 gca\_literal = GCA[ 20 ]%, True between .LITERAL and .END LITERAL

R2256 0	gca_xcase	= GCA[ 21 ]%, !(SAVEALL)Case rules for index entries.
R2257 0	gca_f_xcase	= GCA[ 21 ]%,
R2258 0		
R2259 0	gca_page_cnt	= GCA[ 22 ]%, Number of pages generated so far.
R2260 0	gca_contents_cnt	= GCA[ 23 ]%, Number of table-of-contents entries written to the .BRN file.
R2261 0	gca_index_cnt	= GCA[ 24 ]%, Number of index entries written to the .BRN file.
R2262 0	gca_old_cref_cnt	= GCA[ 25 ]%, Number of cross-reference entries read from the old .BRN file.
R2263 0	gca_new_cref_cnt	= GCA[ 26 ]%, Number of cross-reference entries written to the .BRN file.
R2264 0		
R2265 0	gca_orange_cnt	= GCA[ 27 ]%, Count of number of page ranges specified on /PAGE_RANGE switch.
R2266 0	gca_skip_out	= GCA[ 28 ]%, True if skipping output because of a /PAGE_RANGE specification.
R2267 0	gca_debug_index	= (GCA[29])<0,1>%, True if debugging the index.
R2268 0	gca_debug_toc	= (GCA[29])<1,1>%, True if debugging the table of contents.
R2269 0	gca_debug_cnd	= (GCA[29])<2,1>%, True if debugging conditionals (.IF, etc.).
R2270 0	gca_debug_fil	= (GCA[29])<3,1>%, True if want file names listed.
R2271 0	gca_debug_cref	= (GCA[29])<4,1>%, True if want cross-reference errors flagged inline.
R2272 0	gca_debug_save	= (GCA[29])<5,1>%, True if want save/restore information echoed.
R2273 0	gca_max_asn	= GCA[ 30 ]%, Result of last .AUTOSUBTITLE command. Remembered during .NO AUTOSUBTITLE
R2274 0	gca_btc	= (GCA[31])<0,1>%, True if a binary table of contents is wanted.
R2275 0	gca_cmd_btc	= (GCA[31])<1,1>%, True iff user said /INTERMEDIATE.
R2276 0	gca_bix	= (GCA[31])<2,1>%, True if a binary index is wanted.
R2277 0		
R2278 0	gca_case	= .GCA[ 32 ]%, !(SAVEALL)Set by .UPPER/LOWER CASE
R2279 0	gca_f_case	= GCA[ 32 ]%,
R2280 0	gca_flag_cmd	= .GCA[ 33 ]%, !(SAVE)Last .FLAGS ALL/.NO FLAGS ALL command
R2281 0	gca_f_flag_cmd	= GCA[ 33 ]%,
R2282 0		
R2283 0	gca_pwidth	= GCA[ 34 ]%, !Physical page width
R2284 0		
R2285 0	gca_lwidth	= .GCA[ 35 ]%, !(SAVE)Logical page width
R2286 0	gca_f_lwidth	= GCA[ 35 ]%,
R2287 0		
R2288 0	gca_clit	= GCA[ 36 ]%, True for counted literals.
R2289 0	gca_note_prim	= GCA[ 37 ]%, Primary margin adjust for .NOTE
R2290 0	gca_note_alt	= GCA[ 38 ]%, Alternate margin adjust for .NOTE
R2291 0	gca_skipping	= (GCA[39])<0,1>%, !True if in the FALSE branch of an .IF command.
R2292 0	gca_nia	= GCA[ 40 ]%, Count of attempted negative indents.
R2293 0	gca_xmarg	= GCA[ 41 ]%, Count of crossed margin attempts.
R2294 0	gca_normal_xtn	= GCA[ 42 ]%, Next transaction number for index entry NOT in a footnote.
P2295 0	gca_foot_xtn	= GCA[ 43 ]%, Next transaction number for index entry in a footnote.
R2296 0	gca_index_fmt	= GCA[ 44 ]%, If True, generate dots in index. (Not currently set anywhere in the code.)
R2297 0	gca_down_flag	= (GCA[45])<0,1>%, !True if the unconditional lines are for /down.
R2298 0	gca_max_require	= GCA[ 46 ]%, Same as MAX REQUIRE.
R2299 0	gca_req_depth	= GCA[ 47 ]%, Current depth of .REQUIRE (usually 0, i.e., not a .REQUIRE file).
R2300 0	gca_fehler	= GCA[ 48 ]%, True if any errors have been found.
R2301 0	gca_errcnt	= GCA[ 49 ]%, Count of lines of error messages.
R2302 0	gca_err_dir	= GCA[ 50 ]%, Indicates where errors are to be reported.
R2303 0		
R2304 0	gca_keep	= .GCA[ 51 ]%, !(SAVE)True if user said .KEEP.
R2305 0	gca_f_keep	= GCA[ 51 ]%,
R2306 0		
R2307 0	gca_io_flags	= GCA[ 52 ]%, !General I/O control flags.
R2308 0	gca_cmd_quick	= (GCA[52])<0,1>%, !True if /QUICK or /NODOUTPUT.
R2309 0	termination_log	= (GCA[52])<1,1>%, True if /LOG.
R2310 0	gca_flip	= (GCA[52])<2,1>%, True if /DEC=FLIP.
R2311 0	gca_s_output	= (GCA[52])<3,1>%, True if /OUTPUT was explicitly specified.
R2312 0	gca_op_dev	= (GCA[52])<4,4>%, Type of output device (see OPDEV.REQ).

```
R2313 0
R2314 0      gca_ln01_ital_under = (GCA[52])<8,1>%; ! For LN01 output: set=italics, clear=underlining.
R2315 0      gca_ln01_port_lnd = (GCA[52])<9,1>%; ! For LN01 output: set=portrait, clear=landscape.
R2316 0      gca_cmd_pages = (GCA[52])<10,1>%; !True if /PAGES.
R2317 0
R2318 0      gca_diag1 = GCA[ 53 ]%; !First 16 diagnostic control flags.
R2319 0      gca_diag2 = GCA[ 54 ]%; !Second 16 diagnostic control flags.
R2320 0
R2321 0      gca_xp_ever = GCA[ 55 ]%; !True if user gave any .XP/.YP commands since last .DX or .PX.
R2322 0      gca_line_pend = GCA[ 56 ]%; !Used for OUTHDR in determining if the header has been processed and output.
R2323 0
R2324 0      gca_black_box = GCA[ 57 ]%; !True if user said /AUTOMATIC.
R2325 0      gca_cref_errcnt = (GCA[57])<8,8>%; !Number of unresolved cross references.
R2326 0      gca_cross_reference = (GCA[58])<0,1>%; !True if user said /CROSS_REFERENCE (it's the default).
R2327 0      gca_expand_cref = (GCA[58])<1,1>%; !True if cross references should be expanded.
R2328 0      gca_old_brn_exists = (GCA[58])<2,1>%; !True if an old .BRN file exists and was read.
R2329 0      gca_cref_changed = (GCA[58])<3,1>%; !True if any cross-reference changed in the course of this run.
R2330 0      gca_do_cont_already = (GCA[58])<4,1>%; !True if a do contents has been processed in this run.
R2331 0      gca_do_index_already = (GCA[58])<5,1>%; !True if a do index has been processed in this run.
R2332 0      gca_rerun_count = (GCA[59])<0,8>%; !Number of times DSRPLUS must be rerun for complete and correct /AUTOMATIC
R2333 0      gca_pass_count = (GCA[59])<8,8>%; !Number of the current /AUTOMATIC rerun pass.
R2334 0
R2335 0      LITERAL
R2336 0      gca_size = 64; ! Number of cells in GCA. As of version V04-000 there are
R2337 0          ! 5 free cells.
R2338 0
R2339 0      !The following literals define where errors are to be reported
R2340 0      !NOTE: The bit representation of these literals is used by DOOPTS.
R2341 0      LITERAL
R2342 0      report_err_none = 0; !Report no error messages
R2343 0      report_err_file = 1; !Report in output file only.
R2344 0      report_err_std = 2; !Report on standard error log only.
R2345 0      report_err_both = 3; !Report errors in both output file and on standard error device.
R2346 0
R2347 0      !Definition of diagnostic control flags. The names may be later changed,
R2348 0      !but for now, these names will at least provide easy access for initial use.
R2349 0      MACRO
R2350 0      diag1_0 = (GCA_DIAG1)<0,1>%
R2351 0      diag1_1 = (GCA_DIAG1)<1,1>%
R2352 0      diag1_2 = (GCA_DIAG1)<2,1>%
R2353 0      diag1_3 = (GCA_DIAG1)<3,1>%
R2354 0      diag1_4 = (GCA_DIAG1)<4,1>%
R2355 0      diag1_5 = (GCA_DIAG1)<5,1>%
R2356 0      diag1_6 = (GCA_DIAG1)<6,1>%
R2357 0      diag1_7 = (GCA_DIAG1)<7,1>%
R2358 0      diag1_8 = (GCA_DIAG1)<8,1>%
R2359 0      diag1_9 = (GCA_DIAG1)<9,1>%
R2360 0      diag1_10 = (GCA_DIAG1)<10,1>%
R2361 0      diag1_11 = (GCA_DIAG1)<11,1>%
R2362 0      diag1_12 = (GCA_DIAG1)<12,1>%
R2363 0      diag1_13 = (GCA_DIAG1)<13,1>%
R2364 0      diag1_14 = (GCA_DIAG1)<14,1>%
R2365 0      diag1_15 = (GCA_DIAG1)<15,1>%
R2366 0
R2367 0      MACRO
R2368 0      diag2_0 = (GCA_DIAG2)<0,1>%
R2369 0      diag2_1 = (GCA_DIAG2)<1,1>%
```

```
R2370 0 diag2_2 = (GCA_DIAG2)<2,1>%;  
R2371 0 diag2_3 = (GCA_DIAG2)<3,1>%;  
R2372 0 diag2_4 = (GCA_DIAG2)<4,1>%;  
R2373 0 diag2_5 = (GCA_DIAG2)<5,1>%;  
R2374 0 diag2_6 = (GCA_DIAG2)<6,1>%;  
R2375 0 diag2_7 = (GCA_DIAG2)<7,1>%;  
R2376 0 diag2_8 = (GCA_DIAG2)<8,1>%;  
R2377 0 diag2_9 = (GCA_DIAG2)<9,1>%;  
R2378 0 diag2_10 = (GCA_DIAG2)<10,1>%;  
R2379 0 diag2_11 = (GCA_DIAG2)<11,1>%;  
R2380 0 diag2_12 = (GCA_DIAG2)<12,1>%;  
R2381 0 diag2_13 = (GCA_DIAG2)<13,1>%;  
R2382 0 diag2_14 = (GCA_DIAG2)<14,1>%;  
R2383 0 diag2_15 = (GCA_DIAG2)<15,1>%;  
R2384 0  
R2385 0  
MACRO  
R2386 0 !  
R2387 0 gca_cmd_bar = (GCA_CMD_LSTBTS)<BAR-->%;  
R2388 0 gca_cmd_isq = (GCA_CMD_LSTBTS)<ISQ-->%;  
R2389 0 gca_cmd_osq = (GCA_CMD_LSTBTS)<OSQ-->%;  
R2390 0 gca_cmd_rit = (GCA_CMD_LSTBTS)<RIT-->%;  
R2391 0 gca_cmd_und = (GCA_CMD_NBITS)<UND--5%  
R2392 0 gca_cmd_bld = (GCA_CMD_NBITS)<BLD-->%;  
R2393 0 gca_cmd_ovr = (GCA_CMD_NBITS)<OVR-->%;  
R2394 0 gca_cmd_ind = (GCA_CMD_NBITS)<IND-->%;  
R2395 0  
R2396 0  
MR2397 0  
MR2398 0  
R2399 0  
MACRO  
gca_definition =  
VECTOR [gca_size]  
%;
```

The following are true if user:

did not forbid change bars on the command line.  
requested input sequence numbers.  
requested output line numbers.  
said /RIGHT.  
said /UNDERLINING.  
said /BOLDING.  
said /OVERSTRIKING.  
said /INDEXING.

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

D 5  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 90 (2)

: 2400 0 REQUIRE 'REQ:GETQSC.REQ'; ! GETQ\_... Completion codes

R2401 0  
R2402 0  
R2403 0  
R2404 0  
R2405 0  
R2406 0  
R2407 0  
R2408 0  
R2409 0  
R2410 0  
R2411 0  
R2412 0  
R2413 0  
R2414 0  
R2415 0  
R2416 0  
R2417 0  
R2418 0  
R2419 0  
R2420 0  
R2421 0  
R2422 0  
R2423 0  
R2424 0  
R2425 0  
R2426 0  
R2427 0  
R2428 0  
R2429 0  
R2430 0  
R2431 0  
R2432 0  
R2433 0  
R2434 0  
R2435 0  
R2436 0  
R2437 0  
R2438 0  
R2439 0  
R2440 0  
R2441 0  
R2442 0  
R2443 0  
R2444 0  
R2445 0  
R2446 0  
R2447 0  
R2448 0  
R2449 0  
R2450 0  
R2451 0  
R2452 0  
R2453 0  
R2454 0

Version: 'V04-000'  
\*\*\*\*\*  
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\*\*\*\*\*  
++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
Completion codes returned by GETQS  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Rich Friday  
CREATION DATE: 1978  
MODIFIED BY:  
002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
--  
LITERAL  
GETQS\_NORMAL = 0. | Everything went ok.  
GETQS\_BAD = 1. | Quoted string ill-formed, etc.  
GETQS\_TOO\_LONG = 2. | Too many characters.  
GETQS\_NONE = 3. | There was no string to get.  
! End of GETQSC.REQ

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

F 5  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 92 (2)

: 2455 0 REQUIRE 'REQ:GNCC.REQ'; ! Completion codes returned by GNAME.

R2456 0  
R2457 0 Version: 'V04-000'  
R2458 0  
R2459 0  
R2460 0  
R2461 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R2478 0  
R2479 0  
R2480 0  
R2481 0  
R2482 0  
R2483 0 \*\*  
R2484 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R2485 0  
R2486 0  
R2487 0 ABSTRACT:  
R2488 0 Completion codes returned by GNAME.  
R2489 0  
R2490 0 ENVIRONMENT: Transportable BLISS  
R2491 0  
R2492 0 AUTHOR: Rich Friday  
R2493 0  
R2494 0  
R2495 0 CREATION DATE: 1978  
R2496 0  
R2497 0 MODIFIED BY:  
R2498 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R2499 0 Global edit of all modules. Updated module names, idents,  
R2500 0 copyright dates. Changed require files to BLISS library.  
R2501 0  
R2502 0  
R2503 0  
R2504 0 LITERAL  
R2505 0 GNAME\_NORMAL = 01; ! All went well.  
R2506 0 GNAME\_NO\_NAME = 02; ! Illegally formed or missing name.  
R2507 0 GNAME\_TOO\_LONG = 03; ! Excess characters have been dropped.  
R2508 0  
R2509 0 LITERAL  
R2510 0 GNAME\_CC\_COUNT = 03; ! Number of condition codes returned  
R2511 0 ! by GNAME.  
R2512 0 ! End of GNCC.REQ

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

H 5  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$\_255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 94 (2)

: 2513 0 REQUIRE 'REQ:GSLUCC.REQ'; ! GSLU\_... Completion codes

R2514 0 Version: 'V04-000'  
R2515 0 \*\*\*\*\*  
R2516 0 \*  
R2517 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R2535 0 \*  
R2536 0 \*  
R2537 0 \*  
R2538 0 \*  
R2539 0 \*  
R2540 0 \*  
R2541 0 \*  
R2542 0 \*\*  
R2543 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R2544 0  
R2545 0 ABSTRACT:  
R2546 0 Completion codes returned by GSLU.  
R2547 0  
R2548 0 ENVIRONMENT: Transportable BLISS  
R2549 0  
R2550 0 AUTHOR: Rich Friday  
R2551 0  
R2552 0 CREATION DATE: 1978  
R2553 0  
R2554 0  
R2555 0 MODIFIED BY:  
R2556 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R2557 0 Global edit of all modules. Updated module names, idents,  
R2558 0 copyright dates. Changed require files to BLISS library.  
R2559 0  
R2560 0  
R2561 0  
R2562 0 LITERAL  
R2563 0 GSLU\_NORMAL = 01, ! All went well.  
R2564 0 GSLU\_NONE = 02, ! Missing string.  
R2565 0 GSLU\_TOO\_LONG = 03; ! Excess characters have been dropped.  
R2566 0  
R2567 0 LITERAL  
R2568 0 GSLU\_CC\_COUNT = 03; ! Number of condition codes returned  
R2569 0 ! by GSLU.  
R2570 0  
R2571 0 ! End of GSLUCC.REQ

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43  
VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 96  
(2)

2571 0  
U 2572 0 %IF DSRPLUS %THEN  
U 2573 0 REQUIRE 'REQ:GTOKCC.REQ'; ! GT\_... Completion codes  
2574 0 %FI  
2575 0  
2576 0 REQUIRE 'REQ:HCT.REQ'; ! HCT\_... (Heading Control Table) & LAYOUT\_...

R2577 0      HCT.REQ      Definitions for Header Control Tables  
R2578 0  
R2579 0      Version:      'V04-000'  
R2580 0  
R2581 0      \*\*\*\*\*  
R2582 0      \*  
R2583 0      \*      COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R2599 0      \*      SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.  
R2600 0  
R2601 0  
R2602 0      \*\*\*\*\*  
R2603 0  
R2604 0  
R2605 0      ++  
R2606 0      FACILITY:      DSR (Digital Standard RUNOFF) / DSRPLUS  
R2607 0  
R2608 0      ABSTRACT:  
R2609 0           Definitions pertaining to tables that define how headings, etc.  
R2610 0           are to appear.  
R2611 0  
R2612 0      ENVIRONMENT:      Transportable BLISS  
R2613 0  
R2614 0      AUTHOR:      Rich Friday  
R2615 0  
R2616 0      CREATION DATE:      16-October-1980

R2617 0  
R2618 0  
R2619 0  
R2620 0  
R2621 0  
R2622 0  
R2623 0  
R2624 0  
R2625 0  
R2626 0  
R2627 0  
R2628 0  
R2629 0  
R2630 0  
R2631 0  
R2632 0  
R2633 0  
R2634 0  
R2635 0  
R2636 0  
R2637 0  
R2638 0  
R2639 0  
R2640 0  
R2641 0  
R2642 0  
R2643 0  
R2644 0  
R2645 0  
R2646 0  
R2647 0  
R2648 0  
R2649 0  
R2650 0  
R2651 0  
R2652 0  
R2653 0  
R2654 0  
R2655 0  
R2656 0  
R2657 0  
R2658 0  
R2659 0  
R2660 0  
R2661 0  
UR2662 0  
UR2663 0  
R2664 0  
R2665 0  
R2666 0  
UR2667 0  
UR2668 0  
R2669 0  
R2670 0  
R2671 0  
R2672 0  
R2673 0

MODIFIED BY:

006 KFA00006 Ken Alden 10-Jul-1984  
Number\_page and NMPG\_NP are now part of SAVE (not saveall).

005 REM00005 Ray Marshall 16-November-1983  
Added macros so that Ken's SAVRES module can load cells with  
them instead of using numeric offsets. They have the string  
"-f\_" within them.

004 KFA00004 Ken Alden 16-Mar-1983  
SAVE/RESTORE now enabled for DSR

003 KAD00003 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--

MACRO

! HCT\_FIRST\_TITLE = HCT[ 0 ]%, ! True if headings wanted on ALL pages.

HCT\_DATE = .HCT[ 1 ]%, ! (SAVEALL)True if the date is wanted in the subtitle.

HCT\_f\_DATE = HCT[ 1 ]%, ! (SAVEALL)True if headers are wanted.

HCT\_HEADERS = .HCT[ 2 ]%, ! (SAVEALL)True if headers are wanted.

HCT\_f\_HEADERS = HCT[ 2 ]%, ! (SAVE)True if pages are to be numbered.

HCT\_NUMBER\_PAGE = .HCT[ 3 ]%, ! (SAVE)True if pages are to be numbered.

HCT\_f\_NUMBER\_PAGE= HCT[ 3 ]%,

HCT\_ODD\_EVEN = HCT[ 4 ]%, ! "ODD" or "EVEN"-ness of page.

HCT\_HD\_CASE = .HCT[ 5 ]%, ! (SAVEALL)Case rules for the words PAGE/INDEX

HCT\_f\_HD\_CASE = HCT[ 5 ]%, ! (SAVEALL)TRUE if subtitles wanted.

HCT\_SUBLTITLE = .HCT[ 6 ]%, ! (SAVEALL)TRUE if subtitles wanted.

HCT\_f\_SUBLTITLE = HCT[ 6 ]%,

HCT\_LAYOUT = HCT[ 7 ]%, ! The page layout to be used (see below)

HCT\_LAYOUTN = HCT[ 8 ]%, ! Blank lines between text and page number at bottom.

HCT\_LAYOUT\_NP = HCT[ 9 ]%, ! The page layout to be used on the next page.

HCT\_LAYOUTN\_NP = HCT[10 ]%, ! Same as HCT\_LAYOUTN, but for next page.

HCT\_NMPG\_NP = .HCT[11 ]%, ! (SAVE)True if pages are to be numbered on the next page.

HCT\_f\_NMPG\_NP = HCT[11 ]%,

XIF DSRPLUS XTHEN  
    HCT\_TITLE\_ALWAYS= HCT[12 ]% ! True if titles wanted on ALL pages, including chapter pages.

XFI ;

LITERAL

XIF DSRPLUS XTHEN

    HCT\_SIZE = 13;

ELSE

    HCT\_SIZE = 12;

XFI

LITERAL ! Case rules for words PAGE and INDEX

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

M 5

15-Sep-1984 23:07:40  
15-Sep-1984 22:52:18

VAX-11 Bliss-32 V4.0-742  
\$255\$DUA28:[RUNOFF.SRC]HCT.REQ;1

Page 99  
(2)

R2674 0	HCT_HD_LOWER = 0,	.HEADERS LOWER
R2675 0	HCT_HD_UPPER = 1,	.HEADERS UPPER
R2676 0	HCT_HD_MIXED = 2;	.HEADERS MIXED
R2677 0		
R2678 0	LITERAL	
R2679 0	LAYOUT_STANDARD = 0,	Names for page layouts
R2680 0	LAYOUT_CENTERED = 1,	Standard RUNOFF
R2681 0	LAYOUT_FLIP_ODD = 2;	Title, subtitle centered at top, page number at bottom.
R2682 0		Page number at bottom. Flip title, subtitle at top.
R2683 0	LAYOUT_RUN_BOTC = 3;	Start with titles right if odd page.
R2684 0		Same as LAYOUT_STANDARD, but include the running page
R2685 0		number centered at the bottom of the page.
R2686 0		
MR2687 0	MACRO	
R2688 0	HCT_DEFINITION = VECTOR[HCT_SIZE];	

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

N 5

15-Sep-1984 23:07:40

15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742

\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

Page 100  
(2)

: 2689 0 REQUIRE 'REQ:HLC.REQ'; ! HLC\_... (Header Level Control) area items

R2690 0  
R2691 0 Version: 'V04-000'  
R2692 0  
R2693 0 \*\*\*\*\*  
R2694 0 \*  
R2695 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R2713 0 \*  
R2714 0 \*\*\*\*\*\*  
R2715 0  
R2716 0  
R2717 0 ++  
R2718 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R2719 0  
R2720 0 ABSTRACT:  
R2721 0 Definitions relating to the HLC (Header Level Control area).  
R2722 0  
R2723 0 ENVIRONMENT: Transportable BLISS  
R2724 0  
R2725 0 AUTHOR: Rich Friday  
R2726 0  
R2727 0 CREATION DATE: 1978  
R2728 0  
R2729 0 MODIFIED BY:  
R2730 0  
R2731 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R2732 0 Global edit of all modules. Updated module names, idents,  
R2733 0 copyright dates. Changed require files to BLISS library.  
R2734 0  
R2735 0 --  
R2736 0  
R2737 0  
MR2738 0 MACRO HLC\_UPPER = HLC[0] !Maximum .HL number for which entire text  
MR2739 0 !is to be in upper case.  
R2740 0  
MR2741 0 HLC\_CAP = HLC[1] !Maximum .HL number for which to capitalize  
MR2742 0 !first character of each word and leave  
MR2743 0 !others alone.  
R2744 0  
MR2745 0 HLC\_RUNON = HLC[2] !Smallest .HL number for which to generate  
MR2746 0 !'-' and leave no break before next text line.

```
R2747 0
MR2748 0
MR2749 0
R2750 0
MR2751 0
R2752 0
MR2753 0
R2754 0
MR2755 0
R2756 0
MR2757 0
MR2758 0
R2759 0
MR2760 0
R2761 0
MR2762 0
R2763 0
R2764 0
R2765 0
R2766 0
R2767 0
R2768 0
MR2769 0
R2770 0
MR2771 0
R2772 0
MR2773 0
R2774 0
R2775 0
R2776 0
MR2777 0
R2778 0
R2779 0
R2780 0

        HLC_CO_NBITS      %,= HLC[3]      !Control carry-over of underlining/bolding/overstriking
                                         %,= HLC[4]      !from .HL to subtitle.
                                         %,= HLC[5]      !Leave this many blank lines after the header.
                                         %,= HLC[6]      !Anticipate this many lines (include in test page).
                                         %,= HLC[7]      !Skip this many lines before the header.
                                         %,= HLC[8]      !Smallest .HL number for which to leave the header
                                         %,= HLC[9]      !unnumbered.
                                         %,= HLC[10]     !Number of spaces after the section number.
                                         %,= HLC[11]     !Smallest .HL number for which to center the header
                                         %,= HLC[12]     !(if header is not run-in).

        LITERAL          HLC_SIZE        = 10;      !Number of cells in the HLC.

        MACRO            HLC_CO_BLD      = (HLC_CO_NBITS)<BLD__> !Carry over bolding to subtitles.
                                         %,= HLC_CO_NBITS<UND__> !Carry over underlining to subtitles.
                                         %,= HLC_CO_NBITS<OVR__> !Carry over overstriking to subtitles.
                                         %,= HLC_CO_NBITS<BLD__> !Carry over bolding to subtitles.
                                         %,= HLC_CO_NBITS<UND__> !Carry over underlining to subtitles.
                                         %,= HLC_CO_NBITS<OVR__> !Carry over overstriking to subtitles.

        MACRO            HLC_DEFINITION = VECTOR[HLC_SIZE];
                                         %,= HLC_CO_NBITS<BLD__> !Carry over bolding to subtitles.
                                         %,= HLC_CO_NBITS<UND__> !Carry over underlining to subtitles.
                                         %,= HLC_CO_NBITS<OVR__> !Carry over overstriking to subtitles.

        !                         End of HLC.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

D 6  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 103  
(2)

: 2781 0 REQUIRE 'REQ:IFSTK.REQ'; ! IFSTK\_... stack for nested .IFs

R2782 0  
R2783 0  
R2784 0  
R2785 0  
R2786 0  
R2787 0  
R2788 0  
R2789 0  
R2790 0  
R2791 0  
R2792 0  
R2793 0  
R2794 0  
R2795 0  
R2796 0  
R2797 0  
R2798 0  
R2799 0  
R2800 0  
R2801 0  
R2802 0  
R2803 0  
R2804 0  
R2805 0  
R2806 0  
R2807 0  
R2808 0  
R2809 0  
R2810 0  
R2811 0  
R2812 0  
R2813 0  
R2814 0  
R2815 0  
R2816 0  
R2817 0  
R2818 0  
R2819 0  
R2820 0  
R2821 0  
R2822 0  
R2823 0  
R2824 0  
R2825 0  
R2826 0  
R2827 0  
R2828 0  
R2829 0  
R2830 0  
R2831 0  
R2832 0  
R2833 0  
R2834 0  
R2835 0  
R2836 0  
R2837 0  
R2838 0

Version: 'V04-000'

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
Definitions related to the IF stack, for nested .IF commands.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:

002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--  
LITERAL

IFSTK_SIZE = 10,	Up to 10 levels of .IFs.
IFSTK_DEPTH = -1,	Index into the IFSTK where the current depth is saved.
IFSTK_VR = 0,	Index to VRxxxx information.
IFSTK_BOOL = 1,	Logical value in effect at this time.
IFSTK_SOURCE = 2,	The handler code of the command that made this entry.
IFSTK_REQ_D = 3,	.REQUIRE depth at which .IF must terminate.
IFSTK_IPAGEN = 4,	Input file page number.
IFSTK_ISEQN = 5,	Input file sequence number.
IFSTK_FLAG = 6,	The /DRAFT flag that was interrupted.

```
: R2839 0      IFSTK_ELSE_FLG = 7; ! The /DRAFT flag for the .else branch.  
: R2840 0  
: R2841 0      STRUCTURE  
: R2842 0      IFSTACK[I,J:N=IFSTK_SIZE] =  
: R2843 0      [%UPVAL*( 8*N + 1 + 8 )]  
: R2844 2      (IFSTACK + (If J eql IFSTK_DEPTH  
: R2845 2      then 0  
: R2846 0      else %UPVAL*(1 + 8*I + J) ) );  
: R2847 0  
: R2848 0      !  
:                  End of IFSTK.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

G 6  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 106  
(2)

: 2849 0 REQUIRE 'REQ:INDEX.REQ'; ! Structures used by the indexing command

R2850 0  
R2851 0 Version: 'V04-000'  
R2852 0  
R2853 0 \*\*\*\*\*  
R2854 0 \*  
R2855 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R2872 0 \*  
R2873 0 \*  
R2874 0 \* \*\*\*\*\*  
R2875 0  
R2876 0  
R2877 0 ++  
R2878 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R2879 0  
R2880 0 ABSTRACT:  
R2881 0 Structures for use by the indexing command.  
R2882 0  
R2883 0 ENVIRONMENT: Transportable BLISS  
R2884 0  
R2885 0 AUTHOR: Rich Friday  
R2886 0  
R2887 0 CREATION DATE: 1978  
R2888 0  
R2889 0 MODIFIED BY:  
R2890 0  
R2891 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R2892 0 Global edit of all modules. Updated module names, idents,  
R2893 0 copyright dates. Changed require files to BLISS library.  
R2894 0  
R2895 0 --  
R2896 0  
LR2897 0 XIF  
LR2898 0 2\*%BPADDR LEQ %BPVAL !Can addresses be packed in a word?  
UR2899 0 XTHEN  
UR2900 0 ! Structure of index entry (DECsystem-10/20).  
UR2901 0 MACRO  
UR2902 0 X\_PREV = 0,0 18,0 %, !Link to previous item (HALF WORD)  
UR2903 0 X\_NEXT = 0,18,18,0 %, !Link to next item (0 ==> EOL) (HALF WORD)  
UR2904 0 X\_SUBX = 1,0 18,0 %, !Sub index pointer (HALF WORD)  
UR2905 0 X\_SIIBC = 1,18,8,0 %, !Sub index level (BYTE)  
UR2906 0 X\_BARS = 1,26,1,0 %, !Change bar flag (BIT)

```
UR2907 0      X_REF      = 2,0,18,0 %; !Extra reference pointer      (HALF WORD)
UR2908 0      X_TEXT     = 2,18,18,0 %; !Pointer to text of index item (HALF WORD)
UR2909 0
UR2910 0      LITERAL
UR2911 0      X_ENTRY    = 3;           !Number of words in index entry.
UR2912 0
UR2913 0      ! Structure of extra reference entry (DECsystem-10/20).
UR2914 0      MACRO
UR2915 0      XX_LINK   = 0,0,18,0 %; !Pointer to additional entries.
UR2916 0      XX_PAGE    = 0,18,18,1 %; !Transaction number.
UR2917 0
UR2918 0      LITERAL
UR2919 0      XX_ENTRY= 1;           !Length of extra reference entry.
UR2920 0
UR2921 0
R2922 0      XELSE
R2923 0      ! Structure of index entry for -11s, VAXes, and -20s with extended addressing.
R2924 0      MACRO
R2925 0      X_PREV     = 0,0,%BPVAL,0 %;   Link to previous item      (WORD)
R2926 0      X_NEXT     = 1,0,%BPVAL,0 %;   Link to next item (0 ==> EOL) (WORD)
R2927 0      X_SUBX    = 2,0,%BPVAL,0 %;   Sub index pointer        (WORD)
R2928 0      X_SUBC    = 3,0,8,0 %;        Sub index level          (BYTE)
R2929 0      X_BARS    = 3,8,1,0 %;        Change bar flag          (BIT)
R2930 0      X_REF     = 4,0,%BPVAL,0 %;   Extra reference pointer (WORD)
R2931 0      X_TEXT     = 5,0,%BPVAL,0 %;   Pointer to text of index item (WORD)
R2932 0
R2933 0      LITERAL
R2934 0      X_ENTRY    = 6;           !Number of words in index entry.
R2935 0
R2936 0      ! Structure of extra reference entry (-11s, VAXes, -20 with extended addressing).
R2937 0      MACRO
R2938 0      XX_LINK   = 0,0,%BPVAL,0 %;   Pointer to additional entries.
R2939 0      XX_PAGE    = 1,0,%BPVAL,1 %;   Transaction number.
R2940 0
R2941 0      LITERAL
R2942 0      XX_ENTRY= 2;           !Length of extra reference entry.
R2943 0      XFI
R2944 0
R2945 0      !Dummy datasets
R2946 0      LITERAL
R2947 0      DS_X_ENTRY=X_ENTRY,
R2948 0      DS_XX_ENTRY=XX_ENTRY,
R2949 0      DS_X_STRING=0;
R2950 0
R2951 0      !           End of INDEX.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

1 6

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15-Sep-1984 22:50:43

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\_S255\$DUA2\$:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 2952 0 REQUIRE 'REQ:IRAC.REQ'; ! IRAC\_... structure Macros & literal

R2953 0 IRAC.REQ Macros, literals, and structures defining the IRAC.  
R2954 0  
R2955 0 Version: 'V04-000'  
R2956 0  
R2957 0 \*\*\*\*\*  
R2958 0 \*  
R2959 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R2978 0 \* \*\*\*\*\*  
R2979 0  
R2980 0  
R2981 0 \*\*  
R2982 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R2983 0  
R2984 0 ABSTRACT:  
R2985 0 Macros, literals, and structures defining the IRAC (Input Record  
R2986 0 Area).  
R2987 0  
R2988 0 ENVIRONMENT: Transportable BLISS  
R2989 0  
R2990 0 AUTHOR: Rich Friday  
R2991 0  
R2992 0 CREATION DATE: 1978  
R2993 0  
R2994 0 MODIFIED BY:  
R2995 0  
R2996 0 004 KAD00004 Keith Dawson 07-Mar-1983  
R2997 0 Global edit of all modules. Updated module names, idents,  
R2998 0 copyright dates. Changed require files to BLISS library.  
R2999 0  
R3000 0 --  
R3001 0  
R3002 0  
R3003 0 MACRO  
IRAC\_BARS = (IRAC[ 00 ])<BAR >% !TRUE if this line is marked with change bars.  
IRAC\_SEQN FLAG = IRAC[ 01 ]% !TRUE if ISEQN is an SOS style line number.  
IRAC\_ISEQN = IRAC[ 02 ]% Input line number or sequence number.  
IRAC\_IPAGEN = IRAC[ 03 ]% Input page number.  
IRAC\_FSPEC\_P = IRAC[ 04 ]% CH\$PTR to the file-spec  
IRAC\_FSPEC\_C = IRAC[ 05 ]% Number characters in the file-spec  
IRAC\_DRAFT\_FLG = IRAC[ 06 ]% TRUE/FALSE flag for /DRAFT.

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

L 6  
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15-Sep-1984 22:52:35

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\$255\$DUA28:[RUNOFF.SRC]IRAC.REQ;1

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(1)

R3010 0  
R3011 0  
R3012 0  
R3013 0  
R3014 0  
MR3015 0  
R3016 0  
R3017 0  
R3018 0

LITERAL      IRAC\_SIZE      = 7;      !Number of elements in IRAC.  
MACRO      IRAC\_DEFINITION =  
              VECTOR[IRAC\_SIZE];  
              !      End of IRAC.REQ

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

M 6  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 112  
(2)

: 3019 0 REQUIRE 'REQ:KC.REQ'; ! Definition of macros: KCNS, KCS, & TISF

R3020 0  
R3021 0 Version: 'V04-000'  
R3022 0  
R3023 0  
R3024 0  
R3025 0 \*\*\*\*\*  
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R3044 0 \*\*\*\*\*  
R3045 0  
R3046 0  
R3047 0 ++  
R3048 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R3049 0  
R3050 0 ABSTRACT:  
R3051 0 Defines macros for reading a single character from input.  
R3052 0  
R3053 0 ENVIRONMENT: Transportable BLISS  
R3054 0  
R3055 0 AUTHOR: Rich Friday  
R3056 0  
R3057 0 CREATION DATE: 1978  
R3058 0  
R3059 0 MODIFIED BY:  
R3060 0  
R3061 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R3062 0 Global edit of all modules. Updated module names, idents.  
R3063 0 copyright dates. Changed require files to BLISS library.  
R3064 0  
R3065 0 --  
R3066 0  
R3067 0 KCNS reads a character and advances the cursor. Substitution, as indicated  
R3068 0 by the presence of the Substitute flag, is never performed.  
R3069 0  
R3070 0 MACRO  
MR3071 0 kcns( ) =  
MR3072 0 (IF .fs\_length (ira) LEQ 0  
MR3073 0 THEN  
MR3074 0 BEGIN  
MR3075 0 EXTERNAL LITERAL  
MR3076 0 rintes : UNSIGNED (8);

```
MR3077 0          khar = rintes;
MR3078 0          fs_length (ira) = -1;
MR3079 0          END
MR3080 0          ELSE
MR3081 0          fs_rchar (ira,khar)
R3082 0          %;
R3083 0
R3084 0          ! KCS reads a character; it calls SUBST if the character read is the
R3085 0          Substitute flag and recognition of the Substitute flag is enabled.
R3086 0
R3087 0          MACRO
MR3088 0          kcs( )      =
MR3089 0          BEGIN
MR3090 0          EXTERNAL khar;
MR3091 0          EXTERNAL ROUTINE subst;
MR3092 0          kcns();
MR3093 0          !*****Temporarily turned off
MR3094 0          IF tisf (.khar)
MR3095 0          THEN
MR3096 0          subst ();
MR3097 0          !*****End of temporarily turned off
MR3098 0          END
R3099 0          %;
R3100 0
R3101 0          ! TISF returns the value TRUE if KHAR contains the Substitute flag, and
R3102 0          recognition of the Substitute flag is enabled.
R3103 0
R3104 0          MACRO
MR3105 0          tisf (khar) =
MR3106 0          (.flgt [sub_flag,flag_enabled]          ! Recognition of Substitute flag enabled?
MR3107 0          AND
MR3108 0          .sca_flags                      ! Recognition of all flags enabled?
MR3109 0          AND
MR3110 0          (khar EQL .flgt [sub_flag,flag_character])) ! Right character?
R3111 0          %;
R3112 0
R3113 0          !          End of KC.REQ
```

```
3114 0
: U 3115 0 %IF DSRPLUS %THEN
: U 3116 0 REQUIRE 'REQ:KEYWORD.REQ';      ! Keyword-table definitions
: 3117 0 %FI
: 3118 0
: 3119 0 REQUIRE 'REQ:KWITEM.REQ';      ! Macros to access command-keyword fields
```

R3120 0  
R3121 0 Version: 'V04-000'  
R3122 0  
R3123 0 \*\*\*\*\*  
R3124 0 \*  
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R3144 0 \*\*\*\*\*  
R3145 0  
R3146 0  
R3147 0 ++  
R3148 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R3149 0  
R3150 0 ABSTRACT: Defines macros for fields of key word entries.  
R3151 0  
R3152 0 ENVIRONMENT: Transportable BLISS  
R3153 0  
R3154 0 AUTHOR: Rich Friday CREATION DATE: 1978  
R3155 0

R3156 0 | MODIFIED BY:  
R3157 0 |  
R3158 0 | 005 RER00005 Ron Randall 17-Mar-1983  
R3159 0 | Changed iih to iit to better reflect its topnote function.  
R3160 0 |  
R3161 0 | 004 RER00004 Ron Randall 07-Mar-1983  
R3162 0 | Global edit of all modules. Updated module names, idents,  
R3163 0 | copyright dates. Changed require files to BLISS library.  
R3164 0 | Changed all <macro name>s to kwitem\_<macro\_name> to avoid  
R3165 0 | conflict with LP1.BLI.  
R3166 0 |  
R3167 0 | --

```
R3168 0 MACRO
R3169 0
R3170 0     Length of keyword.
R3171 0
MR3172 0     item_length (item) =
MR3173 0         BEGIN
MR3174 0             BIND x = .item [0]: VECTOR;
MR3175 0             x [0]
MR3176 0             END %,
R3177 0
R3178 0     Address of keyword, CH$PTR.
R3179 0
MR3180 0     p_word (item) =
MR3181 0         BEGIN
MR3182 0             BIND x = .item [0]: VECTOR;
MR3183 0             x [1]
MR3184 0             END %,
R3185 0
R3186 0     Handler code.
R3187 0
R3188 0     kwitem_handler_code (item)      = item [1] %,
R3189 0
R3190 0     Same field does double duty.
R3191 0
R3192 0     kwitem_next_list (item)        = item [1] %,
R3193 0
R3194 0     All options collectively.
R3195 0
R3196 0     kwitem_actions (item)        = item [2] %,
R3197 0
R3198 0     TRUE if keyword chain continues.
R3199 0
R3200 0     kwitem_chain_continues (item) = (item [2]) <8, 1> %,
R3201 0
R3202 0     TRUE if a defined abbreviation.
R3203 0
R3204 0     kwitem_abbreviation (item)    = (item [2]) <9, 1> %,
R3205 0
R3206 0     TRUE for commands related to .IF.
R3207 0
R3208 0     kwitem_rif (item)           = item <10, 1> %,
R3209 0
R3210 0     TRUE if illegal in a footnote.
R3211 0
R3212 0     kwitem_iif (item)           = item <11, 1> %,
R3213 0
R3214 0     TRUE if waiting text to be forced out.
R3215 0
R3216 0     kwitem_do_outnj (item)      = item <12, 1> %,
R3217 0
R3218 0     TRUE if command has a numerical argument.
R3219 0
R3220 0     kwitem_do_getnum (item)      = item <13, 1> %,
R3221 0
R3222 0     TRUE if illegal in a topnote.
R3223 0
R3224 0     kwitem_iit (item)           = item <14, 1> %,
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

G 7  
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15-Sep-1984 22:52:44 -\$255\$DUA28:[RUNOFF.SRC]KWITEM.REQ;1 (3)

R3225 0 | Minimum number of characters for a match.  
R3226 0 | kwitem\_minimum\_match (item) = (item [2]) <0, 8> %;  
R3227 0 |  
R3228 0 |  
R3229 0 |  
R3230 0 | ! End of KWITEM.REQ

```
3231 0
: 3232 0
: 3233 0
: 3234 0
: 3235 0
: 3236 0
: 3237 0
: 3238 0
: 3239 0
: 3240 0

%IF DSRPLUS %THEN
REQUIRE 'REQ:KWS.REQ';
REQUIRE 'REQ:KWS$CON.REQ';
REQUIRE 'REQ:KWSTYL.REQ';
REQUIRE 'REQ:KWTDEF.REQ';
REQUIRE 'REQ:KWXPYP.REQ';
%FI
REQUIRE 'REQ:LETTER.REQ';

: Definitions for the Attribute Keyword Structure
: Definitions for .SEND CONTENTS keywords
: KW$... keyword definitions for .STYLE <elfit:h>
: KW$PDP..., KW$PDM keyword definitions for $$entities
: KWX$... keyword definitions for .XP, .YP, .ENA XP
: Alpha testing and case changing macros
```

R3241 0  
R3242 0  
R3243 0  
R3244 0  
R3245 0  
R3246 0  
R3247 0  
R3248 0  
R3249 0  
R3250 0  
R3251 0  
R3252 0  
R3253 0  
R3254 0  
R3255 0  
R3256 0  
R3257 0  
R3258 0  
R3259 0  
R3260 0  
R3261 0  
R3262 0  
R3263 0  
R3264 0  
R3265 0  
R3266 0  
R3267 0  
R3268 0  
R3269 0  
R3270 0  
R3271 0  
R3272 0  
R3273 0  
R3274 0  
R3275 0  
R3276 0  
R3277 0  
R3278 0  
R3279 0  
R3280 0  
R3281 0  
R3282 0  
R3283 0  
R3284 0  
R3285 0  
R3286 0  
R3287 0  
R3288 0  
R3289 0  
MR3290 0  
MR3291 0  
R3292 0  
R3293 0  
MR3294 0  
MR3295 0  
R3296 0  
R3297 0

Version: 'V04-000'

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
Macros to test if a character is an appropriately flavored letter,  
and macros to convert between upper and lower case.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:  
002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--

MACRO  
upper letter (khar) = ! See if upper case letter  
(khar GEQ XC'A' AND khar LEQ XC'Z')  
%,  
lower letter (khar) = ! See if lower case letter  
(khar GEQ XC'a' AND khar LEQ XC'z')  
%,

```
MR3298 0      letter (khar)           ! See if any type of letter
MR3299 0      (upper_letter (khar) OR lower_letter (khar))
R3300 0      %
R3301 0
R3302 0
MR3303 0      MACRO
MR3304 C      upper_case (khar) =      ! Convert to upper case
R3305 0      (Khar + %C'A' - %C'a')
R3306 0      %
R3307 0      lower_case (khar) =      ! Convert to lower case
MR3308 0      (Khar + %C'a' - %C'A')
R3309 0      %
R3310 0
R3311 0      !      End of LETTER.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

K 7  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 123  
(2)

: 3312 0 REQUIRE 'REQ:LODEFs.REQ'; ! Literal definitions of LSTOPs operations

R3313 0 | LODEFS.REQ Define function literals for LSTOPS.BLI  
R3314 0 |  
R3315 0 | Version: 'V04-000'  
R3316 0 |  
R3317 0 | \*\*\*\*\*  
R3318 0 | \*  
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R3336 0 | \*  
R3337 0 | \*  
R3338 0 | \*\*\*\*\*  
R3339 0 |  
R3340 0 |  
R3341 0 | ++  
R3342 0 | FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R3343 0 |  
R3344 0 | ABSTRACT:  
R3345 0 | This file contains a list of operation codes that control which special  
R3346 0 | listing functions are processed by LSTOPS.  
R3347 0 |  
R3348 0 | ENVIRONMENT: Transportable BLISS  
R3349 0 |  
R3350 0 | AUTHOR: Rich Friday  
R3351 0 |  
R3352 0 | CREATION DATE: 1978  
R3353 0 |  
R3354 0 | MODIFIED BY:  
R3355 0 |  
R3356 0 | 005 REM00005 Ray Marshall 17-May-1984  
R3357 0 | Added support for /DEC\_INTERNAL:OUTPUT\_LINE\_NUMBER.  
R3358 0 | Removed LSTOPS\_BARS because it is no longer referenced.  
R3359 0 |  
R3360 0 | 004 KAD00004 Keith Dawson 07-Mar-1983  
R3361 0 | Global edit of all modules. Updated module names, idents,  
R3362 0 | copyright dates. Changed require files to BLISS library.  
R3363 0 |  
R3364 0 |  
R3365 0 |  
R3366 0 |  
R3367 0 | LITERAL LSTOPS\_NONE = 0, !Don't do any at all.  
R3368 0 | LSTOPS\_ALL !Do all requested options.  
R3369 0 |

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

M 7  
15-Sep-1984 23:07:40  
15-Sep-1984 22:52:53

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]LODEFs.REQ;1

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(1)

```
R3370 0
R3371 0
R3372 0
R3373 0
R3374 0
R3375 0
R3376 0
R3377 0
R3378 0
R3379 0
R3380 0
R3381 0

      = 1^BPOSIT(BAR--) + |Change bars
      1^BPOSIT(CND--) + |/DEBUG:CONDITIONALS
      1^BPOSIT(ISQ--) + |SEQUENCE
      1^BPOSIT(OSQ--) + |DEC INTERNAL:OUTPUT_LINE_NUMBER
      1^BPOSIT(RIT--) , |/RIGHT

      ! And for blank lines:

LSTOPs_NO_ISEQN      !Everything except /SEQUENCE
      = 1^BPOSIT(BAR--) + |Change bars
      1^BPOSIT(CND--) + |/DEBUG:CONDITIONALS
      1^BPOSIT(RIT--) ; |/RIGHT
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

N 7  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 126  
(2)

: 3382 0 REQUIRE 'REQ:MSG.REQ'; ! Macros used in error messages

R3383 0  
R3384 0 Version: 'V04-000'  
R3385 0  
R3386 0  
R3387 0  
R3388 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R3405 0  
R3406 0  
R3407 0  
R3408 0  
R3409 0  
R3410 0  
R3411 0 \*++  
R3412 0 \* FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R3413 0  
R3414 0 \* ABSTRACT:  
R3415 0 \* Defines macros used by error-message processing.  
R3416 0  
R3417 0  
R3418 0  
R3419 0  
R3420 0  
R3421 0  
R3422 0  
R3423 0  
R3424 0  
R3425 0  
R3426 0  
R3427 0  
R3428 0  
R3429 0  
R3430 0  
MR3431 0  
MR3432 0  
MR3433 0  
MR3434 0  
MR3435 0  
MR3436 0  
MR3437 0  
MR3438 0  
MR3439 0  
MACRO  
msg (l, s) =  
BEGIN  
EXTERNAL ROUTINE  
filout;  
%IF %LENGTH EQL 1  
%THEN filout (-1, %CHARCOUNT(l), CH\$PTR(UPLIT(l)))  
%ELSE

```
MR3440 0          filout (-1, l, s)
MR3441 0          %FI
MR3442 0          END
R3443 0
R3444 0
R3445 0
MR3446 0
MR3447 0          ermssg (s)=
                    CH$PTR ( UPLIT (%STRING(%CHAR(%CHARCOUNT (s)),s)) )
R3448 0          %;
R3449 0
R3450 0
MR3451 0          MACRO
MR3452 0          bell =
R3453 0          %CHAR(%0'07')
R3454 0
R3455 0          del =
MR3456 0          %CHAR(%0'177')
R3457 0
R3458 0
R3459 0          %;
:               !          End of MSG.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

D 8  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 129  
(2)

: 3460 0 REQUIRE 'REQ:NDXRTY.REQ'; ! .BIX-format binary file record definitions

R3461 0  
R3462 0  
R3463 0  
R3464 0  
R3465 0  
R3466 0  
R3467 0  
R3468 0  
R3469 0  
R3470 0  
R3471 0  
R3472 0  
R3473 0  
R3474 0  
R3475 0  
R3476 0  
R3477 0  
R3478 0  
R3479 0  
R3480 0  
R3481 0  
R3482 0  
R3483 0  
R3484 0  
R3485 0  
R3486 0  
R3487 0  
R3488 0  
R3489 0  
R3490 0  
R3491 0  
R3492 0  
R3493 0  
R3494 0  
R3495 0  
R3496 0  
R3497 0  
R3498 0  
R3499 0  
R3500 0  
R3501 0  
R3502 0  
R3503 0  
R3504 0  
R3505 0  
R3506 0  
R3507 0  
R3508 0  
R3509 0  
R3510 0  
R3511 0  
R3512 0  
R3513 0  
R3514 0  
R3515 0  
R3516 0  
R3517 0

Version: 'V04-000'

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
This file contains literals and macros defining Index record groups  
found in either a .BIX or .BRN file.

ENVIRONMENT: Transportable BLISS

AUTHOR: J.P. Kellerman

CREATION DATE: January 1982

MODIFIED BY:

003 KAD00003 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--  
An Index Record Group consists of an identification code stored  
in the lower half of the first fullword followed by zero or more  
fullwords which make up the rest of the record group.

LITERAL  
NEW SEQUENCE = 1,  
INDEX\_XTN = 2,  
INDEX\_ENTRY = 3,  
Index Record Group Identification codes are:  
New File Group.  
Page Number Transaction Record Group.  
Index Entry Record Group.

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

F 8

15-Sep-1984 23:07:40

VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:53:28

\$255\$DUA28:[RUNOFF.SRC]NDXRTY.REQ;1 Page 131 (1)

: R3518 0 INDEX\_ATTRIBUTES = 4; ! XPLUS-YPLUS Index Entry Attributes Record Group  
: R3519 0 ! (.BRN files only).  
: R3520 0  
: R3521 0 !  
: End of NDXRTY.REQ

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

6 8  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 132  
(2)

```
: 3522 0
: U 3523 0 %IF DSRPLUS %THEN
: U 3524 0 REQUIRE 'REQ:NDXXPL.REQ';      ! .XPLUS attribute-structure record definitions
: 3525 0 %FI
: 3526 0
: 3527 0 REQUIRE 'REQ:NMLST.REQ';      ! NMLST_..., NM_..., and NUMBER_LIST
```

R3528 0  
R3529 0  
R3530 0  
R3531 0  
R3532 0  
R3533 0  
R3534 0  
R3535 0  
R3536 0  
R3537 0  
R3538 0  
R3539 0  
R3540 0  
R3541 0  
R3542 0  
R3543 0  
R3544 0  
R3545 0  
R3546 0  
R3547 0  
R3548 0  
R3549 0  
R3550 0  
R3551 0  
R3552 0  
R3553 0  
R3554 0  
R3555 0  
R3556 0  
R3557 0  
R3558 0  
R3559 0  
R3560 0  
R3561 0  
R3562 0  
R3563 0  
R3564 0  
R3565 0  
R3566 0  
R3567 0  
R3568 0  
R3569 0  
R3570 0  
R3571 0  
R3572 0  
R3573 0  
R3574 0  
R3575 0  
R3576 0  
R3577 0  
R3578 0  
R3579 0  
R3580 0  
R3581 0  
R3582 0  
R3583 0  
R3584 0

Version: 'V04-000'

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
Definitions pertaining to lists of numbers picked up by GLNM.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:

002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--

LITERAL  
NMLST\_\_COUNT = 1; !The number of numbers found.  
NMLST\_\_VALUE = 2; !The values of the numbers.  
NMLST\_\_DESCR = 3; !What the numbers looked like.

LITERAL  
NMLST\_MAXSIZE = 40;

STRUCTURE  
NUMBER\_LIST[I,Attribute;Length=NMLST\_MAXSIZE] =

```
:
R3585 0
R3586 0 [%UPVAL*( 2*length + 1 )]
R3587 1 (If Attribute eql NMLST__COUNT
R3588 1 then
R3589 1     NUMBER_LIST
R3590 1 else
R3591 2     (NUMBER_LIST + %UPVAL*1 +
R3592 3         (if Attribute eql NMLST__VALUE
R3593 4             then %UPVAL*(I - 1)
R3594 0             else %UPVAL*(I - 1 + Length) ));
R3595 0
R3596 0 ! Names for NMLST_DESCRIPTOR things.
R3597 0
R3598 0 LITERAL
R3599 0     NM_NULL      = 0,    ! No number given.
R3600 0     NM_UNSIGNED  = 1,    ! Number was unsigned.
R3601 0     NM_PLUS      = 2,    ! A '+' preceeded the number.
R3602 0     NM_MINUS      = 3,    ! A '-' preceeded the number.
R3603 0     NM_BAD        = 4;   ! The number was in error.
R3604 0
R3605 0 MACRO
R3606 0     NMLST_COUNT   = NMLST [0,NMLST__COUNT]%
R3607 0     NMLST_VALUE (I) = NMLST [I,NMLST__VALUE]%
R3608 0     NMLST_DESCR (I) = NMLST [I,NMLST__DESCR]%
R3609 0
R3610 0 ! End of NMLST.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$\_255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

Page 135  
(2)

: 3611 0 REQUIRE 'REQ:NUMPRM.REQ'; ! NUM\_... values returned from GETNUM

R3612 0  
R3613 0 Version: 'V04-000'  
R3614 0  
R3615 0 \*\*\*\*\*  
R3616 0 \*  
R3617 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R3634 0 \*  
R3635 0 \*  
R3636 0 \* \*\*\*\*\*  
R3637 0  
R3638 0  
R3639 0 ++  
R3640 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R3641 0  
R3642 0 ABSTRACT:  
R3643 0 This data structure is used to save results picked up by GETNUM.  
R3644 0  
R3645 0 ENVIRONMENT: Transportable BLISS  
R3646 0  
R3647 0 AUTHOR: Rich Friday  
R3648 0  
R3649 0 CREATION DATE: 1978  
R3650 0  
R3651 0 MODIFIED BY:  
R3652 0  
R3653 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R3654 0 Global edit of all modules. Updated module names, idents,  
R3655 0 copyright dates. Changed require files to BLISS library.  
R3656 0  
R3657 0 --  
R3658 0  
R3659 0 MACRO  
MR3660 0 numprm\_define =  
MR3661 0 VECTOR [4]  
R3662 0 %.  
R3663 0  
MR3664 0 num\_result = !Completion code returned by GETNUM.  
MR3665 0 numprm [0] !See GETNUM.BLI for a description.  
R3666 0 %.  
R3667 0  
MR3668 0 num\_value =

```
: MR3669 0      numprm [1]      !The value of the number processed.  
: R3670 0      %,  
: R3671 0      num_sign      =  
: MR3672 0      numprm [2]      !TRUE if the number was signed.  
: R3673 0      %,  
: R3674 0      num_length    =  
: MR3675 0      numprm [3]      !Number of digits scanned.  
: R3676 0      %;  
: R3677 0      !  
: R3678 0      End of NUMPRM.REQ  
: R3679 0  
: R3680 0
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

M 8  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 138  
(2)

: 3681 0 REQUIRE 'REQ:OPDEV.REQ'; ! OP\_DEV\_... literals: type of output device

R3682 0  
R3683 0  
R3684 0  
R3685 0  
R3686 0  
R3687 0  
R3688 0  
R3689 0  
R3690 0  
R3691 0  
R3692 0  
R3693 0  
R3694 0  
R3695 0  
R3696 0  
R3697 0  
R3698 0  
R3699 0  
R3700 0  
R3701 0  
R3702 0  
R3703 0  
R3704 0  
R3705 0  
R3706 0  
R3707 0  
R3708 0  
R3709 0  
R3710 0  
R3711 0  
R3712 0  
R3713 0  
R3714 0  
R3715 0  
R3716 0  
R3717 0  
R3718 0  
R3719 0  
R3720 0  
R3721 0  
R3722 0  
R3723 0  
R3724 0  
R3725 0  
R3726 0  
R3727 0  
R3728 0  
R3729 0  
R3730 0  
R3731 0  
R3732 0  
R3733 0  
R3734 0  
R3735 0  
R3736 0  
R3737 0  
R3738 0

Version: 'V04-000'

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
Defines the literals used to determine what the target device for the  
output file is.

The field these literals are used with (OP\_DEVICE) is found in GCA.  
Its initial value is captured by the CLI, put into RNOMAC, and picked  
up later by DOOPTS to be put into GCA.

ENVIRONMENT: Transportable BLISS

AUTHOR: Ray Marshall

CREATION DATE: 7-January-1983

MODIFIED BY:

004 KAD00004 Keith Dawson 11-May-1983  
Made FLIP output stream-format (with <cr><lf>).

003 KAD00003 Keith Dawson 23-Mar-1983  
Added support for LN01E; put FLIP here as an output device  
type (instead of the bit GCA\_FLIP).

002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

```
R3739 0 !--  
R3740 0  
R3741 0 $LITERAL  
R3742 0     op_dev_line_printer = 0,          !Output device is a...  
R3743 0     op_dev_first = %number($xpo$distinct),  line-printer (default).  
R3744 0     op_dev_diablo = $DISTINCT,          Diablo-style terminal.  
R3745 0     op_dev_flip = $DISTINCT,           "Electronic Book" output.  
R3746 0     op_dev_stream_output = %number($xpo$distinct),  
R3747 0     op_dev_vt100 = $DISTINCT,           VT100 terminal.  
R3748 0     op_dev_ln01 = $DISTINCT,            LN01 laser printer.  
R3749 0     op_dev_ln01e = $DISTINCT,           European-style LN01.  
R3750 0     op_dev_läst = %number($xpo$distinct);  
R3751 0  
R3752 0 MACRO  
MR3753 0     op_dev_write_output_line =  
MR3754 0  
MR3755 0     NOTE: the following code depends on the output-device values in  
MR3756 0     OPDEV.REQ: specifically, on the fact that the stream-output,  
MR3757 0     bare-cr-emphasis devices (LP and Diablo) have device numbers  
MR3758 0     smaller than those of the escape-sequence-emphasis devices (LN01,  
MR3759 0     VT100). It is coded this way in the interest of efficiency: only  
MR3760 0     one fetch and compare is needed.  
MR3761 0     BEGIN  
MR3762 0     IF .gca_op_dev LEQ op_dev_stream_output  
MR3763 0     THEN  
MR3764 0     clh (clh_write_out)          ! LP and Diablo (STREAM) devices.  
MR3765 0     ELSE  
MR3766 0     clh (clh_out_nocrlf)        ! LN01 and VT100 (non-STREAM) devices.  
MR3767 0     END  
R3768 0     %:  
R3769 0     !: End of OPDEV.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCML -- HL indicator record

9  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 141  
(2)

: 3770 0 REQUIRE 'REQ:OUTOPT.REQ'; ! OUTOPT\_... output control vector elements

R3771 0  
R3772 0 Version: 'V04-000'  
R3773 0  
R3774 0  
R3775 0  
R3776 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R3792 0 \* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.  
R3793 0  
R3794 0  
R3795 0  
R3796 0  
R3797 0  
R3798 0 ++  
R3799 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R3800 0  
R3801 0 ABSTRACT:  
R3802 0 Options specifying final output generation.  
R3803 0  
R3804 0 ENVIRONMENT: Transportable BLISS  
R3805 0  
R3806 0 AUTHOR: Rich Friday  
R3807 0  
R3808 0 CREATION DATE: 1978  
R3809 0  
R3810 0 MODIFIED BY:  
R3811 0  
R3812 0 003 KAD00003 Keith Dawson 07-Mar-1983  
R3813 0 Global edit of all modules. Updated module names, idents,  
R3814 0 copyright dates. Changed require files to BLISS library.  
R3815 0  
R3816 0 --  
R3817 0  
R3818 0  
MR3819 0 MACRO  
R3820 0 outopt\_und\_char = outopt[0] ! Character to be used for underlining.  
MR3821 0 outopt\_und\_nosp = outopt[1] ! True if the underlining character is non-spacing.  
R3822 0  
MR3823 0 outopt\_und\_sep = outopt[2] ! True if underlining is to be done by  
R3824 0 putting OUTOPT\_UND\_CHAR on the next line.  
R3825 0  
MR3826 0 outopt\_back = outopt[3] ! True if the backspace character is to be used.  
R3827 0

```
: MR3828 0    outopt_over      = outopt[4]      ! TRUE if should do special functions
: R3829 0    %,                      ! by overprinting the same line.
: R3830 0
: MR3831 0    outopt_bldn      = outopt[5]      ! Amount of overstriking to be done when bolding.
: R3832 0    %;
: R3833 0
: R3834 0    LITERAL
: R3835 0    outopt_size = 6;
: R3836 0
: R3837 0    MACRO
: MR3838 0    outopt_define =
: MR3839 0    VECTOR [outopt_size]
: R3840 0    %;
: R3841 0
: R3842 0    !
:                         End of OUTOPT.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

F 9  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 3843 0 REQUIRE 'REQ:PASS.REQ'; ! PASS\_..., EMPH\_... definitions for final output

R3844 0  
R3845 0 Version: 'V04-000'  
R3846 0  
R3847 0  
R3848 0  
R3849 0  
R3850 0  
R3851 0  
R3852 0  
R3853 0  
R3854 0  
R3855 0  
R3856 0  
R3857 0  
R3858 0  
R3859 0  
R3860 0  
R3861 0  
R3862 0  
R3863 0  
R3864 0  
R3865 0  
R3866 0  
R3867 0  
R3868 0  
R3869 0  
R3870 0  
R3871 0  
R3872 0  
R3873 0  
R3874 0  
R3875 0  
R3876 0  
R3877 0  
R3878 0  
R3879 0  
R3880 0  
R3881 0  
R3882 0  
R3883 0  
R3884 0  
R3885 0  
R3886 0  
R3887 0  
R3888 0  
R3889 0  
R3890 0  
R3891 0  
R3892 0  
R3893 0  
R3894 0  
R3895 0  
R3896 0  
R3897 0  
R3898 0  
R3899 0  
R3900 0

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
Literals for counting output passes in LOUT1.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Keith Dawson  
CREATION DATE: March 1983  
MODIFIED BY:  
001 KAD00001 Keith Dawson 22-Mar-1983  
--  
+  
If no emphasis is present, the line is put out in 1 pass. This is also the  
case if we are generating VT100 output or FLIP output, or if the user said  
/BACKSPACE. If none of these cases applies, then multiple passes are needed  
to generate the built-up output line.  
If any emphasis is present, the emphasized copies of the line are put out  
first; the "real," entire line is generated last. In this case, pass 1  
serves to set up the later passes, but does not produce output.  
pass 1 - calculate pass 2 - bold  
pass 3 - underline pass 4 - bold-underline  
pass 5 - overstrike pass 6 - bold-overstrike

```
R3901 0      !-      pass 7 - output line, if any emphasis was present
R3902 0
R3903 0
R3904 0      LITERAL
R3905 0      pass_setup = 1,
R3906 0      pass_bold = 2,
R3907 0      pass_underline=3,
R3908 0      pass_bold_underline=4,
R3909 0      pass_overstrike = 5,
R3910 0      pass_bold_overstrike = 6,
R3911 0      pass_real_text = 7;
R3912 0
R3913 0      +
R3914 0      * Arrangement of bits in EMPHASIS_BITS:
R3915 0
R3916 0
R3917 0      previous_emphasized      emphasized_char
R3918 0
R3919 0
R3920 0
R3921 0      +-----+-----+-----+-----+-----+
R3922 0      | bit: | 4 | 3 | 2 | 1 |-----+
R3923 0      +-----+-----+-----+-----+-----+
R3924 0
R3925 0      Previous: Under  Bold
R3926 0
R3927 0      Current: Under  Bold
R3928 0
R3929 0
R3930 0
R3931 0      -
R3932 0      MACRO
R3933 0      emph_current_bold =      ! TRUE if this character is bolded.
R3934 0      %,      emphasis_bits<1,1>
R3935 0      emph_current_underline =  ! TRUE if this character is underlined.
R3936 0      %,      emphasis_bits<2,1>
R3937 0
R3938 0      emph_current_emphasized = ! Both bolding and underlining together.
R3939 0      %,      emphasis_bits<1,2>
R3940 0
R3941 0      emph_previous_bold =      ! TRUE if last character output was bolded.
R3942 0      %,      emphasis_bits<3,1>
R3943 0
R3944 0      emph_previous_underline = ! TRUE if last character output was underlined.
R3945 0      %,      emphasis_bits<4,1>
R3946 0
R3947 0      emph_previous_emphasized = ! Both bits together.
R3948 0      %,      emphasis_bits<3,2>
R3949 0
R3950 0
R3951 0      !      End of PASS.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

I 9  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$\_255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 3952 0 REQUIRE 'REQ:PDT.REQ'; : PDT\_... paragraph definition items

R3953 0  
R3954 0 Version: 'V04-000'  
R3955 0  
R3956 0  
R3957 0  
R3958 0 \*\*\*\*\*  
R3959 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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R3976 0  
R3977 0 \*\*\*\*\*  
R3978 0  
R3979 0  
R3980 0 ++  
R3981 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R3982 0  
R3983 0 ABSTRACT:  
R3984 0 Items that define a paragraph.  
R3985 0  
R3986 0 ENVIRONMENT: Transportable BLISS  
R3987 0  
R3988 0 AUTHOR: Rich Friday  
R3989 0  
R3990 0 CREATION DATE: 1978  
R3991 0  
R3992 0 MODIFIED BY:  
R3993 0  
R3994 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R3995 0 Global edit of all modules. Updated module names, idents,  
R3996 0 copyright dates. Changed require files to BLISS library.  
R3997 0  
R3998 0 --  
R3999 0  
R4000 0  
MR4001 0 MACRO  
R4002 0 pdt\_indent = pdt [00] ! Add this to .SCA\_RM at start of a paragraph.  
R4003 0 pdt\_skip = pdt [01] ! Skip this many lines before starting.  
R4004 0 pdt\_tp = pdt [02] ! Do a test page before starting a paragraph.  
R4005 0  
R4006 0  
R4007 0  
R4008 0  
R4009 0 LITERAL  
R4009 0 pdt\_size = 03;

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

K 9  
15-Sep-1984 23:07:40  
15-Sep-1984 22:53:57  
VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]PDT.REQ;1

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(1)

: R4010 0  
: R4011 0  
: MR4012 0  
: MR4013 0  
: R4014 0  
: R4015 0  
: R4016 0  
: MACRO  
:      pdt\_definition =  
:      VECTOR [pdt\_size]  
:      %;  
:      !

End of PDT.REQ

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

L 9  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 150  
(2)

: 4017 0 REQUIRE 'REQ:PHDEF.REQ'; ! PHAN\_... macros & literal

R4018 0 PHDEF.REQ Definitions having to do with the page handler

R4019 0 Version: 'V04-000'

R4020 0 \*\*\*\*\*

R4021 0 \*

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R4043 0 \*

R4044 0 \*\*\*\*\*

R4045 0

R4046 0

R4047 0 \*\*

R4048 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

R4049 0 ABSTRACT:

R4050 0 This require file defines the structure used to control page formatting.

R4051 0 The basic structure name is PHAN. A macro herein (PHAN\_DEFINITION) is used

R4052 0 when defining the structure as an external. Then, the other macros defined

R4053 0 by this require file are used to access the PHAN structure.

R4054 0

R4055 0 This require file also defines any literals related to page formatting.

R4056 0

R4057 0 \*\*\*\*\* NOTE \*\*\*\*\*

R4058 0 The items PHAN\_LCHAR and PHAN\_RCHAR are not yet supported by any routines.

R4059 0

R4060 0 ENVIRONMENT: Transportable BLISS

R4061 0

R4062 0 AUTHOR: Rich Friday

R4063 0

R4064 0 CREATION DATE: 16-October-1980

R4065 0

R4066 0 MODIFIED BY:

R4067 0

R4068 0 007 REM00007 Ray Marshall 16-Nov-1983

R4069 0 For the fields that need .PHAN[##] references, also added macros

R4070 0 without the preceding dot so SAVRES can load them. These new

R4071 0 fields have similar names but with "\_f\_" within them.

R4072 0

R4073 0 006 KFA00006 Ken Alden 16-Mar-1983

R4074 0 Extended SAVE/RESTORE to DSR.

R4075 0  
R4076 0 005 KAD00005 Keith Dawson 07-Mar-1983  
R4077 0 Global edit of all modules. Updated module names, idents,  
R4078 0 copyright dates. Changed require files to BLISS library.  
R4079 0  
R4080 0 ---  
R4081 0  
R4082 0 MACRO  
R4083 0 PHAN\_TOP\_PAGE = PHAN[00]%, !True, if at top of page. \*  
R4084 0  
R4085 0 PHAN\_LINES = .PHAN[01]%, !(SAVE)Logical lines per page.  
R4086 0 PHAN\_f\_LINES = PHAN[01]%, !(SAVE)Logical lines per page.  
R4087 0  
R4088 0 PHAN\_LINES = PHAN[02]%, Physical lines per page.  
R4089 0 PHAN\_LINES\_TP = PHAN[03]%, Logical lines so far.  
R4090 0 PHAN\_PICTURE = PHAN[04]%, Count of deferred figure lines  
R4091 0 PHAN\_RIGHT = PHAN[05]%, Amount to shift text right on page.  
R4092 0 PHAN\_TOP\_FIRST = PHAN[06]%, TRUE if top of first page \*  
R4093 0  
R4094 0 PHAN\_HEADER = .PHAN[07]%, !(SAVEALL)TRUE if headers wanted on pages \*  
R4095 0 PHAN\_f\_HEADER = PHAN[07]%, !(SAVEALL)TRUE if headers wanted on pages \*  
R4096 0  
R4097 0 PHAN\_FORM\_PEND = PHAN[08]%, !NONZERO if a form feed is waiting. \*  
R4098 0 PHAN\_S\_LINES = PHAN[09]%, !Number of spooled lines per page  
R4099 0  
R4100 0 PHAN\_PAGING = .PHAN[10]%, !(SAVEALL)TRUE if .PAGING was said or implied. \*  
R4101 0 PHAN\_f\_PAGING = PHAN[10]%, !(SAVEALL)TRUE if .PAGING was said or implied. \*  
R4102 0  
R4103 0 PHAN\_CMD\_PAGING = PHAN[11]%, TRUE if /NOPAGING was not said or implied. \*  
R4104 0 PHAN\_DOWN = PHAN[12]%, Move output down this many lines.  
R4105 0 PHAN\_SIMULATE = PHAN[13]%, TRUE if top of page should be done  
R4106 0  
R4107 0 PHAN\_BOTTOM = PHAN[14]%, with blank lines rather than a FF. \*  
R4108 0  
R4109 0 PHAN\_PAUSE = PHAN[15]%, Number of filled lines when at  
R4110 0 PHAN\_L\_CHAR = PHAN[16]%, bottom of page.  
R4111 0 PHAN\_R\_CHAR = PHAN[17]%, TRUE if the user said /PAUSE. \*  
R4112 0 PHAN\_DEPTH = PHAN[18]%, Character to the left of the page number.  
R4113 0  
R4114 0  
R4115 0  
MR4116 0 MACRO  
R4117 0 PHAN\_DEFINITION =  
R4118 0 VECTOR[19]%;  
R4119 0  
R4120 0 LITERAL PHAN\_MIN\_PAGE\_LENGTH = 13; !No output page may be defined in any  
R4121 0  
: way to be smaller than this.

FLIPRECS -- FLIP/RUNOFF record formats  
TOCML -- HL indicator record

B 10  
15-Sep-1984 23:07:40 15-Sep-1984 22:50:43 VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 153  
(2)

; 4122 0 REQUIRE 'REQ:RNOMAC.REQ'; ! RNOS... command line table items

R4123 0  
R4124 0 Version: 'V04-000'  
R4125 0  
R4126 0  
R4127 0  
R4128 0  
R4129 0  
R4130 0  
R4131 0  
R4132 0  
R4133 0  
R4134 0  
R4135 0  
R4136 0  
R4137 0  
R4138 0  
R4139 0  
R4140 0  
R4141 0  
R4142 0  
R4143 0  
R4144 0  
R4145 0  
R4146 0  
R4147 0  
R4148 0  
R4149 0  
R4150 0  
R4151 0  
R4152 0  
R4153 0  
R4154 0  
R4155 0  
R4156 0  
R4157 0  
R4158 0  
R4159 0  
R4160 0  
R4161 0  
R4162 0  
R4163 0  
R4164 0  
R4165 0  
R4166 0  
R4167 0  
R4168 0  
R4169 0  
R4170 0  
R4171 0  
R4172 0  
R4173 0  
R4174 0  
R4175 0  
R4176 0  
R4177 0  
R4178 0  
R4179 0  
\*\*\*\*\*  
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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
ABSTRACT:  
RUNOFF Command Information. Initialized by the command line interface  
and picked up for distribution by DOOPTS.  
ENVIRONMENT: Transportable BLISS  
AUTHOR: Rich Friday  
CREATION DATE: 1978  
MODIFIED BY:  
012 REM00012 Ray Marshall 5-December-1983  
Added RNO\$V\_LN01\_LOAD to indicate that one wishes to load  
fonts before printing this file on an LN01.  
011 REM00011 Ray Marshall 13-Sep-1983  
Added bit RNO\$V\_LN01\_HEADER to support disabling the font  
control header information from being put into an .LN1 output  
file.  
010 KAD00010 Keith Dawson 2-Jun-1983  
Added bits RNO\$V\_S\_RIGHT and RNO\$V\_S\_DOWN to tell if the  
qualifiers were explicitly given.  
009 KAD00009 Keith Dawson 22-Mar-1983  
Renamed LN01 italic/underline and portrait/landscape bits.

```
R4180 0
R4181 0
R4182 0
R4183 0
R4184 0
R4185 0
R4186 0
R4187 0
R4188 0
R4189 0
R4190 0
R4191 0
R4192 0
R4193 0
R4194 0
R4195 0
R4196 0
R4197 0
R4198 0
R4199 0
R4200 0
R4201 0
R4202 0
R4203 0
R4204 0
R4205 0
R4206 0
R4207 0
R4208 0
R4209 0
R4210 0
R4211 0
R4212 0
R4213 0
R4214 0
R4215 0
R4216 0
R4217 0
R4218 0
R4219 0
R4220 0
R4221 0
R4222 0
R4223 0
R4224 0
R4225 0
R4226 0
R4227 0
R4228 0
R4229 0
R4230 0
R4231 0
R4232 0
R4233 0
R4234 0
R4235 0
R4236 0

in order to reflect the default values.
Got rid of RNOSV FLIP bit, in favor of (.gca_op_dev
EQL cp_dev_flip).

008 KAD00008 Keith Dawson 07-Mar-1983
Global edit of all modules. Updated module names, idents,
copyright dates. Changed require files to BLISS [library.

--
```

**\$FIELD \$rno\$cmd\_fields = SET**

**| File specification string descriptors.**

```
RNO$T_INPUT      = [$DESCRIPTOR(FIXED)] ,           ! Input
RNO$T_OUTPUT     = [$DESCRIPTOR(FIXED)] ,           ! Output
RNO$T_INTERMEDIATE = [$DESCRIPTOR(FIXED)] ,         ! Binary intermediate .BRN type file
RNO$T_DROP_REC   = [$DESCRIPTOR(FIXED)] ,           ! Drop-record file
```

**| Miscellaneous other string descriptors.**

```
rno$t_program_name = [$DESCRIPTOR(FIXED)] ,           ! Name of program
rno$t_program_filename = [$DESCRIPTOR(FIXED)] ,         ! Filename of program

rno$t_pages      = [$DESCRIPTOR(FIXED)] ,             ! Page range string descriptor:
$OVERLAY( $SUB_FIELD( rno$t_pages, STR$H_LENGTH ) )
rno$h_pages      = [$BYTES(2)] ,                      ! length of page range string
$OVERLAY( $SUB_FIELD( rno$t_pages, STR$A_POINTER ) )
rno$sa_pages     = [$POINTER] ,                        ! pointer to page range string
$CONTINUE

rno$t_variant    = [$DESCRIPTOR(FIXED)] ,             ! Variant string descriptor:
$OVERLAY( $SUB_FIELD( rno$t_variant, STR$H_LENGTH ) )
rno$h_variant    = [$BYTES(2)] ,                      ! length of variant string
$OVERLAY( $SUB_FIELD( rno$t_variant, STR$A_POINTER ) )
rno$sa_variant   = [$POINTER] ,                        ! pointer to variant string
$CONTINUE

rno$sa_datime   = [$BYTES(12)] ,                      ! System date and time
$OVERLAY( rno$sa_datime )
rno$h_year       = [$BYTES(2)] ,
rno$h_month      = [$BYTES(2)] ,
rno$h_monthday   = [$BYTES(2)] ,
rno$h_hours       = [$BYTES(2)] ,
rno$h_minutes     = [$BYTES(2)] ,
rno$h_seconds     = [$BYTES(2)] ;
$CONTINUE

| Three words of switch option bits:
```

```
rno$sv_options   = [$BYTES(8)] ,                      ! Command option indicators:
$OVERLAY( rno$sv_options )
rno$sv_option1   = [$BYTES(2)] ,
rno$sv_option2   = [$BYTES(2)] ,
rno$sv_option3   = [$BYTES(2)] ,
rno$sv_option4   = [$BYTES(2)] ;
```

```

R4237 0           $OVERLAY ( rno$v_option1 )
R4238 0
R4239 0           rno$v_2Automatic = [$BITS(2)]
R4240 0           $OVERLAY ( rno$v_2Automatic )
R4241 0           rno$v_Automatic = [$BIT]
R4242 0           rno$v_s_Automatic = [$BIT]
R4243 0
R4244 0           rno$v_2backspace = [$BITS(2)]
R4245 0           $OVERLAY ( rno$v_2backspace )
R4246 0           rno$v_backspace = [$BIT]
R4247 0           rno$v_s_backspace = [$BIT]
R4248 0
R4249 0           rno$v_2change = [$BITS(2)]
R4250 0           $OVERLAY ( rno$v_2change )
R4251 0           rno$v_change = [$BIT]
R4252 0           rno$v_s_change = [$BIT]
R4253 0
R4254 0           rno$v_chng_char = [$BIT]
R4255 0
R4256 0           rno$v_2cross_reference = [$BITS(2)]
R4257 0           $OVERLAY ( rno$v_2cross_reference )
R4258 0           rno$v_cross_reference = [$BIT]
R4259 0           rno$v_s_cross_reference = [$BIT]
R4260 0
R4261 0           rno$v_deb_cond = [$BIT]
R4262 0           rno$v_deb_cont = [$BIT]
R4263 0           rno$v_deb_cros = [$BIT]
R4264 0           rno$v_deb_files = [$BIT]
R4265 0           rno$v_deb_index = [$BIT]
R4266 0           rno$v_deb_save = [$BIT]
R4267 0
R4268 0           (1 free bit in OPTION1)
R4269 0
R4270 0           $OVERLAY ( rno$v_option2 )
R4271 0
R4272 0           rno$v_2intermediate = [$BITS(2)]
R4273 0           $OVERLAY ( rno$v_2intermediate )
R4274 0           rno$v_intermediate = [$BIT]
R4275 0           rno$v_s_intermediate = [$BIT]
R4276 0
R4277 0           rno$v_2log = [$BITS(2)]
R4278 0           $OVERLAY ( rno$v_2log )
R4279 0           rno$v_log = [$BIT]
R4280 0           rno$v_s_log = [$BIT]
R4281 0
R4282 0           rno$v_msg_out = [$BIT]
R4283 0           rno$v_msg_user = [$BIT]
R4284 0
R4285 0           rno$v_4_out_format = [$BITS(4)]
R4286 0
R4287 0           rno$v_2output = [$BITS(2)]
R4288 0           $OVERLAY ( rno$v_2output )
R4289 0           rno$v_output = [$BIT]
R4290 0           rno$v_s_output = [$BIT]
R4291 0
R4292 0           rno$v_2overprint = [$BITS(2)]
R4293 0           $OVERLAY ( rno$v_2overprint )

                                ! Carries state of /AUTOMATIC to DOOPTS
                                ! execute multiple passes and utilities as needed
                                ! /AUTOMATIC explicitly specified
                                ! backspace on same line
                                ! backspace on same line
                                ! /BACKSPACE explicitly specified
                                ! change bars requested
                                ! change bars allowed
                                ! /CHANGE explicitly specified
                                ! change bar character specified (see below)
                                ! Carries state of /CROSSREFERENCE to DOOPTS
                                ! translate cross references
                                ! /CROSS_REFERENCE explicitly specified
                                ! go through all paths of .IFs and output draft flags
                                ! echo toc entries in output file
                                ! echo .REFs & $FOOs in output file
                                ! put file names in the output.
                                ! echo index entries in output file
                                ! echo .SAVEs & .RESs in output file

```

```

R4294 0   rno$v_overprint    = [$BIT] ;
R4295 0   rno$v_s_overprint = [$BIT] ;
R4296 0
R4297 0   rno$v_2_pause      = [$BITS(2)] ,
R4298 0   $OVERLAY ( rno$v_2_pause )
R4299 0   rno$v_pause        = [$BIT] ;
R4300 0   rno$v_s_pause     = [$BIT] ;
R4301 0
R4302 0   | (NO free bits in OPTION2)
R4303 0
R4304 0   | $OVERLAY ( rno$v_option3 )
R4305 0
R4306 0   rno$v_quick        = [$BIT] ;
R4307 0
R4308 0   rno$v_2_sequence   = [$BITS(2)] ,
R4309 0   $OVERLAY ( rno$v_2_sequence )
R4310 0   rno$v_sequence     = [$BIT] ;
R4311 0   rno$v_s_sequence  = [$BIT] ;
R4312 0
R4313 0   rno$v_2_simulate   = [$BITS(2)] ,
R4314 0   $OVERLAY ( rno$v_2_simulate )
R4315 0   rno$v_simulate     = [$BIT] ;
R4316 0   rno$v_s_simulate  = [$BIT] ;
R4317 0
R4318 0   rno$v_2_underline   = [$BITS(2)] ,
R4319 0   $OVERLAY ( rno$v_2_underline )
R4320 0   rno$v_underline     = [$BIT] ;
R4321 0   rno$v_s_underline  = [$BIT] ;
R4322 0
R4323 0   rno$v_2_und_separ  = [$BITS(2)] ,
R4324 0   $OVERLAY ( rno$v_2_und_separ )
R4325 0   rno$v_und_separ    = [$BIT] ;
R4326 0   rno$v_s_und_separ = [$BIT] ;
R4327 0
R4328 0   rno$v_2_und_nonsp  = [$BITS(2)] ,
R4329 0   $OVERLAY ( rno$v_2_und_nonsp )
R4330 0   rno$v_und_nonsp    = [$BIT] ;
R4331 0   rno$v_s_und_nonsp = [$BIT] ;
R4332 0
R4333 0   rno$v_und_char    = [$BIT] ;
R4334 0
R4335 0
R4336 0   | (4 free bits in OPTION3)
R4337 0
R4338 0   | $OVERLAY ( rno$v_option4 )
R4339 0
R4340 0   rno$v_ln01_ital_under = [$BIT] ,
R4341 0   rno$v_ln01_port_land = [$BIT] ,
R4342 0   rno$v_ln01_header    = [$BIT] ,
R4343 0   rno$v_ln01_load     = [$BIT] ,
R4344 0
R4345 0   rno$v_s_down       = [$BIT] ;
R4346 0   rno$v_s_right      = [$BIT] ;
R4347 0
R4348 0   | (11 free bits in OPTION4)
R4349 0
R4350 0   | $CONTINUE

```

! Options for LN01 output:  
 set = italics, clear = underlining  
 set = portrait, clear = landscape  
 set = if header wanted in O/P file  
 set = loading of fonts is desired

! /DOWN explicitly specified  
 ! /RIGHT explicitly specified

```
: R4351 0
: R4352 0 rno$C_change      = [SBYTE] ;      ! Change bar character (RNOSV_CHNG_CHAR set)
: R4353 0 rno$C_underline   = [SBYTE] ;      ! Underline character (RNOSV_UND_CHAR set)
: R4354 0
: R4355 0 rno$H_bold        = [SSHORT_INTEGER] ; ! Bolding overprint count
: R4356 0 rno$H_dbg1       = [SSHORT_INTEGER] ; ! Debug flags, 1st word
: R4357 0 rno$H_dbg2       = [SSHORT_INTEGER] ; ! Debug flags, 2nd word
: R4358 0 rno$H_down        = [SSHORT_INTEGER] ; ! Down shift count (number of lines)
: R4359 0 rno$H_right       = [SSHORT_INTEGER] ; ! Right shift count (number of characters)
: R4360 0 rno$H_form_size   = [SSHORT_INTEGER] ; ! Form size (number of lines)
: R4361 0
: R4362 0 TES;
: R4363 0
: R4364 0 LITERAL rno$K_cmd_len = $FIELD_SET_SIZE ; ! Length of RUNOFF command block
: R4365 0
: R4366 0 MACRO
: MR4367 0   $rno$cmd =
: MR4368 0     BLOCK [ rno$K_cmd_len ] FIELD ( $rno$cmd_fields )
: R4369 0   %;
: R4370 0
: R4371 0   ! End of RNOMAC.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

H 10  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$\_255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 159  
(2)

: 4372 0 REQUIRE 'REQ:RUNHAN.REQ'; ! H.... directive literals

R4373 0 RUNHAN.REQ - Literal values of each directive.  
R4374 0  
R4375 0 Version: 'V04-000'  
R4376 0  
R4377 0 \*\*\*\*\*  
R4378 0 \*  
R4379 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
R4380 0 \* DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.  
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R4396 0 \*  
R4397 0 \*  
R4398 0 \*\*\*\*\*  
R4399 0  
R4400 0  
R4401 0 ++  
R4402 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R4403 0  
R4404 0 ABSTRACT:  
R4405 0  
R4406 0 This require file defines the literals used to reference the  
R4407 0 various DSR commands.  
R4408 0  
R4409 0 ENVIRONMENT: Transportable BLISS  
R4410 0  
R4411 0 AUTHOR: Rich Friday CREATION DATE: 1978  
R4412 0

R4413 0 | MODIFIED BY:

R4414 0 | 014 KFA00014 Ken Alden 04-Aug-1983  
R4415 0 | Added H\_DISABLE\_APPEN, H\_PAGE\_NOW.  
R4416 0 |  
R4417 0 | 013 KFA00013 Ken Alden 03-Aug-1983  
R4418 0 | Added directive H\_ENABLE CHAPTER, H\_DISABLE CHAPTER (dsrplus).  
R4419 0 |  
R4420 0 | 012 RER00012 Ron Randall 17-Mar-1983  
R4421 0 | Made topnote-related text consistent with other modules.  
R4422 0 |  
R4423 0 | 011 KFA00011 Ken Alden 16-Mar-1983  
R4424 0 | Made SAVE/RESTORE visible to DSR.  
R4425 0 |  
R4426 0 | 010 KAD00010 Keith Dawson 07-Mar-1983  
R4427 0 | Global edit of all modules. Updated module names, idents,  
R4428 0 | copyright dates. Changed require files to BLISS library.  
R4429 0 | Made handler codes numerically ascending again through  
R4430 0 | their alphabetical order, including both DSR-only and  
R4431 0 | DSRPLUS commands. The DSRPLUS commands will still be  
R4432 0 | reported as errors for DSR.  
R4433 0 |  
R4434 0 |  
R4435 0 | --

R4436 0 LITERAL H\_APPENDIX = 1:  
R4437 0 LITERAL H\_AUTOJUSTIFY = 2:  
R4438 0 LITERAL H\_AUTOPARAGRAPH = 3:  
R4439 0 LITERAL H\_AUTOSUBTITLE = 4:  
R4440 0 LITERAL H\_AUTOTABLE = 5:  
R4441 0  
UR4442 0 %IF DSRPLUS %THEN  
UR4443 0 LITERAL H\_AUTOTITLE = 6:  
R4444 0 %FI  
R4445 0  
R4446 0 LITERAL H\_BEGIN\_BAR = 7:  
R4447 0  
UR4448 0 %IF DSRPLUS %THEN  
UR4449 0 LITERAL H\_BEGIN\_TOPNOTE = 8:  
UR4450 0 LITERAL H\_BEGIN\_PASSTHR = 9:  
R4451 0 %FI  
R4452 0  
R4453 0 LITERAL H\_BLANK = 10:  
R4454 0 LITERAL H\_BREAK = 11:  
R4455 0 LITERAL H\_CENTER = 12:  
R4456 0 LITERAL H\_CHAPTER = 13:  
R4457 0 LITERAL H\_COMMENT = 14:  
R4458 0 LITERAL H\_CONTROL\_CHARA = 15:  
R4459 0  
UR4460 0 %IF DSRPLUS %THEN  
UR4461 0 LITERAL H\_REFERENCEPOIN = 16:  
R4462 0 %FI  
R4463 0  
R4464 0 LITERAL H\_DATE = 17:  
R4465 0  
UR4466 0 %IF DSRPLUS %THEN  
UR4467 0 LITERAL H\_DISABLE\_APPEN = 214:  
R4468 0 %FI  
R4469 0  
R4470 0 LITERAL H\_DISABLE\_BAR = 18:  
R4471 0 LITERAL H\_DISABLE\_BOLD = 19:  
R4472 0  
UR4473 0 %IF DSRPLUS %THEN  
UR4474 0 LITERAL H\_DISABLE\_CHAPT = 212;! Same as H\_no\_chapter  
R4475 0 %FI  
R4476 0  
R4477 0 LITERAL H\_DISABLE\_HYPHE = 20:  
R4478 0 LITERAL H\_DISABLE\_INDEX = 21:  
R4479 0 LITERAL H\_DISABLE\_OVERS = 22:  
R4480 0 LITERAL H\_DISABLE\_TOC = 23:  
R4481 0 LITERAL H\_DISABLE\_UNDER = 24:  
R4482 0  
UR4483 0 %IF DSRPLUS %THEN  
UR4484 0 LITERAL H\_DISABLE\_XPLUS = 25:  
R4485 0 %FI  
R4486 0  
R4487 0 LITERAL H\_DISPLAY\_APPEN = 26:  
R4488 0 LITERAL H\_DISPLAY\_CHAPT = 27:  
R4489 0  
UR4490 0 %IF DSRPLUS %THEN  
UR4491 0 LITERAL H\_DISPLAY\_COUNT = 28:  
R4492 0 %FI

R4493 0  
R4494 0 LITERAL H\_DISPLAY\_DAY = 29:  
R4495 0 LITERAL H\_DISPLAY\_ELEME = 30:  
R4496 0  
UR4497 0 %IF DSRPLUS %THEN  
UR4498 0 LITERAL H\_DISPLAY\_EXAMP = 31:  
UR4499 0 LITERAL H\_DISPLAY FIGUR = 32:  
UR4500 0 LITERAL H\_DISPLAY\_HEAD = 33:  
R4501 0 %FI  
R4502 0  
R4503 0 LITERAL H\_DISPLAY\_HOURS = 34:  
R4504 0 LITERAL H\_DISPLAY\_LEVEL = 35:  
R4505 0 LITERAL H\_DISPLAY\_MINUT = 36:  
R4506 0 LITERAL H\_DISPLAY\_MONTH = 37:  
R4507 0 LITERAL H\_DISPLAY\_NUMBE = 38:  
R4508 0 LITERAL H\_DISPLAY\_SECON = 39:  
R4509 0 LITERAL H\_DISPLAY\_SUBPA = 40:  
R4510 0  
UR4511 0 %IF DSRPLUS %THEN  
UR4512 0 LITERAL H\_DISPLAY\_TABLE = 41:  
R4513 0 %FI  
R4514 0  
R4515 0 LITERAL H\_DISPLAY\_YEAR = 42:  
R4516 0 LITERAL H\_DO\_INDEX = 43:  
R4517 0  
UR4518 0 %IF DSRPLUS %THEN  
UR4519 0 LITERAL H\_DO\_CONTENTS = 44:  
UR4520 0 LITERAL H\_DO\_TABLE = 45:  
R4521 0 %FI  
R4522 0  
R4523 0 LITERAL H\_ELSE = 46:  
R4524 0  
UR4525 0 %IF DSRPLUS %THEN  
UR4526 0 LITERAL H\_ENABLE\_APPEND = 213:  
R4527 0 %FI  
R4528 0  
R4529 0 LITERAL H\_ENABLE\_BAR = 47:  
R4530 0 LITERAL H\_ENABLE\_BOLDIN = 48:  
R4531 0  
UR4532 0 %IF DSRPLUS %THEN  
UR4533 0 LITERAL H\_ENABLE\_CHAPTE = 211:  
R4534 0 %FI  
R4535 0  
R4536 0 LITERAL H\_ENABLE\_HYPHEN = 49:  
R4537 0 LITERAL H\_ENABLE\_INDEXI = 50:  
R4538 0 LITERAL H\_ENABLE\_OVERST = 51:  
R4539 0  
UR4540 0 %IF DSRPLUS %THEN  
UR4541 0 LITERAL H\_ENABLE\_XPLUS = 52:  
R4542 0 %FI  
R4543 0  
R4544 0 LITERAL H\_ENABLE\_TOC = 53:  
R4545 0 LITERAL H\_ENABLE\_UNDERL = 54:  
R4546 0 LITERAL H\_ENDIF = 55:  
R4547 0 LITERAL H\_END\_BAR = 56:  
R4548 0 LITERAL H\_END\_FOOTNOTE = 57:  
R4549 0

```

UR4550 0 %IF DSRPLUS %THEN
UR4551 0 LITERAL H_END_TOPNOTE = 58;
R4552 0 %FI
R4553 0
R4554 0 LITERAL H_END_LIST = 59;
R4555 0 LITERAL H_END_LITERAL = 60;
R4556 0 LITERAL H_END_NOTE = 61;
R4557 0
UR4558 0 %IF DSRPLUS %THEN
UR4559 0 LITERAL H_END_PASSTHROU = 62;
R4560 0 %FI
R4561 0
R4562 0 LITERAL H_END_SUBPAGE = 63;
R4563 0 LITERAL H_ENTRY = 64;
R4564 0 LITERAL H FIGURE = 65;
R4565 0 LITERAL H FIGURE_DEFERR = 66;
R4566 0 LITERAL H_FILL = 67;
R4567 0 LITERAL H_FIRST_TITLE = 68;
R4568 0
UR4569 0 %IF DSRPLUS %THEN
UR4570 0 LITERAL H_FIRST_TITLE_A = 69;
R4571 0 %FI
R4572 0
R4573 0 LITERAL H_FLAGS_ALL = 70;
R4574 0 LITERAL H_FLAGS_BOLD = 71;
R4575 0 LITERAL H_FLAGS_BREAK = 72;
R4576 0 LITERAL H_FLAGS_CAPITAL = 73;
R4577 0 LITERAL H_FLAGS_COMMENT = 74;
R4578 0 LITERAL H_FLAGS_CONTROL = 75;
R4579 0 LITERAL H_FLAGS_ENDFOOT = 76;
R4580 0 LITERAL H_FLAGS_HYPHENA = 77;
R4581 0 LITERAL H_FLAGS_INDEX = 78;
R4582 0 LITERAL H_FLAGS_LOWERCA = 79;
R4583 0 LITERAL H_FLAGS_OVERSTR = 80;
R4584 0
UR4585 0 %IF DSRPLUS %THEN
UR4586 0 LITERAL H_FLAGS_NOPERMU = 81;
UR4587 0 LITERAL H_FLAGS_PASSTHR = 82;
R4588 0 %FI
R4589 0
R4590 0 LITERAL H_FLAGS_PERIOD = 83;
R4591 0 LITERAL H_FLAGS_QUOTE = 84;
R4592 0 LITERAL H_FLAGS_SPACE = 85;
R4593 0 LITERAL H_FLAGS_SUBINDE = 86;
R4594 0 LITERAL H_FLAGS_SUBSTIT = 87;
R4595 0 LITERAL H_FLAGS_UNDERLI = 88;
R4596 0 LITERAL H_FLAGS_UPPERCA = 89;
R4597 0 LITERAL H_FOOTNOTE = 90;
R4598 0 LITERAL H_HEADERS_LOWER = 91;
R4599 0 LITERAL H_HEADERS_MIXED = 92;
R4600 0 LITERAL H_HEADERS_ON = 93;
R4601 0 LITERAL H_HEADERS_UPPER = 94;
R4602 0
UR4603 0 %IF DSRPLUS %THEN
UR4604 0 LITERAL H_HEADER_EXAMPL = 95;
UR4605 0 LITERAL H_HEADER FIGURE = 96;
R4606 0 %FI

```

R4607 0  
R4608 0 LITERAL H\_HEADER\_LEVEL = 97;  
R4609 0  
UR4610 0 %IF DSRPLUS %THEN  
UR4611 0 LITERAL H\_HEADER\_TABLE = 98;  
UR4612 0 LITERAL H\_TOPNOTE\_ON = 99;  
R4613 0 %FI  
R4614 0  
R4615 0 LITERAL H\_HYPHENATION = 100;  
R4616 0 LITERAL H\_IF = 101;  
R4617 0 LITERAL H\_IFNOT = 102;  
R4618 0 LITERAL H\_INDENT = 103;  
R4619 0 LITERAL H\_INDEX = 104;  
R4620 0 LITERAL H\_JUSTIFY = 105;  
R4621 0 LITERAL H\_KEEP = 106;  
R4622 0 LITERAL H\_LAYOUT = 107;  
R4623 0 LITERAL H\_LEF = 108;  
R4624 0 LITERAL H\_LEF1\_MARGIN = 109;  
R4625 0 LITERAL H\_LIST = 110;  
R4626 0 LITERAL H\_LIST\_ELEMENT = 111;  
R4627 0 LITERAL H\_LITERAL = 112;  
R4628 0 LITERAL H\_LOWER\_CASE = 113;  
R4629 0 LITERAL H\_NOTE = 114;  
R4630 0 LITERAL H\_NO\_AUTOJUSTIF = 115;  
R4631 0 LITERAL H\_NO\_AUTOPARAGR = 116;  
R4632 0 LITERAL H\_NO\_AUTOSUBIT = 117;  
R4633 0 LITERAL H\_NO\_AUTOTABLE = 118;  
R4634 0  
UR4635 0 %IF DSRPLUS %THEN  
UR4636 0 LITERAL H\_NO\_AUTOTITLE = 119;  
UR4637 0 LITERAL H\_NO\_CHAPTER = 120;  
R4638 0 %FI  
R4639 0  
R4640 0 LITERAL H\_NO\_CONTROL\_CH = 121;  
R4641 0 LITERAL H\_NO\_DATE = 122;  
R4642 0 LITERAL H\_NO\_FILL = 123;  
R4643 0 LITERAL H\_NO\_FLAGS\_ALL = 124;  
R4644 0 LITERAL H\_NO\_FLAGS\_BOLD = 125;  
R4645 0 LITERAL H\_NO\_FLAGS\_BREA = 126;  
R4646 0 LITERAL H\_NO\_FLAGS\_CAPI = 127;  
R4647 0 LITERAL H\_NO\_FLAGS\_COMM = 128;  
R4648 0 LITERAL H\_NO\_FLAGS\_CONT = 129;  
R4649 0 LITERAL H\_NO\_FLAGS\_ENDF = 130;  
R4650 0 LITERAL H\_NO\_FLAGS\_HYPH = 131;  
R4651 0 LITERAL H\_NO\_FLAGS\_INDE = 132;  
R4652 0 LITERAL H\_NO\_FLAGS\_LOWE = 133;  
R4653 0 LITERAL H\_NO\_FLAGS\_OVER = 134;  
R4654 0  
UR4655 0 %IF DSRPLUS %THEN  
UR4656 0 LITERAL H\_NO\_FLAGS\_NOPE = 135;  
UR4657 0 LITERAL H\_NO\_FLAGS\_PASS = 136;  
R4658 0 %FI  
R4659 0  
R4660 0 LITERAL H\_NO\_FLAGS\_PERI = 137;  
R4661 0 LITERAL H\_NO\_FLAGS\_QUOT = 138;  
R4662 0 LITERAL H\_NO\_FLAGS\_SPAC = 139;  
R4663 0 LITERAL H\_NO\_FLAGS\_SUBI = 140;

R4664 0 LITERAL H\_NO\_FLAGS\_SUBS = 141;  
R4665 0 LITERAL H\_NO\_FLAGS\_UNDE = 142;  
R4666 0 LITERAL H\_NO\_FLAGS\_UPPE = 143;  
R4667 0 LITERAL H\_NO\_HEADERS = 144;  
R4668 0 LITERAL H\_NO\_TOPNOTE = 145;  
R4669 0 LITERAL H\_NO\_HYPHENATIO = 146;  
R4670 0 LITERAL H\_NO\_KEEP = 147;  
R4671 0 LITERAL H\_NO\_JUSTIFY = 148;  
R4672 0 LITERAL H\_NO\_NUMBER = 149;  
R4673 0  
UR4674 0 %IF DSRPLUS %THEN  
UR4675 0 LITERAL H\_NO\_NUMBER\_FOO = 150;  
R4676 0 %FI  
R4677 0  
R4678 0 LITERAL H\_NO\_PAGING = 151;  
R4679 0 LITERAL H\_NO\_PERIOD = 152;  
R4680 0 LITERAL H\_NO\_SPACE = 153;  
R4681 0 LITERAL H\_NO\_SUBTITLE = 154;  
R4682 0 LITERAL H\_NUMBER\_APPEND = 155;  
R4683 0 LITERAL H\_NUMBER\_CHAPTE = 156;  
R4684 0  
UR4685 0 %IF DSRPLUS %THEN  
UR4686 0 LITERAL H\_NUMBER\_EXAMPL = 157;  
UR4687 0 LITERAL H\_NUMBER FIGURE = 158;  
UR4688 0 LITERAL H\_NUMBER\_FOOTNO = 159;  
R4689 0 %FI  
R4690 0  
R4691 0 LITERAL H\_NUMBER\_INDEX = 160;  
R4692 0 LITERAL H\_NUMBER\_LEVEL = 161;  
R4693 0 LITERAL H\_NUMBER\_LIST = 162;  
R4694 0 LITERAL H\_NUMBER\_PAGE = 163;  
R4695 0 LITERAL H\_NUMBER\_RUNNIN = 164;  
R4696 0 LITERAL H\_NUMBER\_SUBPAG = 165;  
R4697 0  
UR4698 0 %IF DSRPLUS %THEN  
UR4699 0 LITERAL H\_NUMBER\_TABLE = 166;  
R4700 0 %FI  
R4701 0  
R4702 0 LITERAL H\_PAGE = 167;  
R4703 0  
UR4704 0 %IF DSRPLUS %THEN  
UR4705 0 LITERAL H\_PAGE\_NOW = 215;  
R4706 0 %FI  
R4707 0  
R4708 0 LITERAL H\_PAGE\_SIZE = 168;  
R4709 0 LITERAL H\_PAGING = 169;  
R4710 0 LITERAL H\_PARAGRAPH = 170;  
R4711 0 LITERAL H\_PERIOD = 171;  
R4712 0 LITERAL H\_PRINT\_INDEX = 172;  
R4713 0 LITERAL H\_REPEAT = 173;  
R4714 0 LITERAL H\_REQUIRE = 174;  
R4715 0 LITERAL H\_RESTORE = 175;  
R4716 0 LITERAL H\_RIGHT = 176;  
R4717 0 LITERAL H\_RIGHT\_MARGIN = 177;  
R4718 0 LITERAL H\_SAVE = 178;  
R4719 0 LITERAL H\_SAVE\_ALL = 179;  
R4720 0

```
UR4721 0 %IF DSRPLUS %THEN
UR4722 0 LITERAL H_SEND_CONTENTS = 180;
R4723 0 %FI
R4724 0
R4725 0 LITERAL H_SEND_TOC = 181;
R4726 0
UR4727 0 %IF DSRPLUS %THEN
UR4728 0 LITERAL H_SET_COUNTER = 182;
R4729 0 %FI
R4730 0
R4731 0 LITERAL H_SET_DATE = 183;
R4732 0 LITERAL H_SET_LEVEL = 184;
R4733 0 LITERAL H_SET_PARAGRAPH = 185;
R4734 0
UR4735 0 %IF DSRPLUS %THEN
UR4736 0 LITERAL H_SET_TEXTSTRIN = 186;
R4737 0 %FI
R4738 0
R4739 0 LITERAL H_SET_TIME = 187;
R4740 0 LITERAL H_SKIP = 188;
R4741 0 LITERAL H_SPACING = 189;
R4742 0 LITERAL H_STANDARD = 190;
R4743 0
UR4744 0 %IF DSRPLUS %THEN
UR4745 0 LITERAL H_STYLE_APPENDI = 191;
UR4746 0 LITERAL H_STYLE_CHAPTER = 192;
R4747 0 %FI
R4748 0
R4749 0 LITERAL H_STYLE_DATE = 193;
R4750 0
UR4751 0 %IF DSRPLUS %THEN
UR4752 0 LITERAL H_STYLE_EXAMPLE = 194;
UR4753 0 LITERAL H_STYLE_PICTURE = 195;
R4754 0 %FI
R4755 0
R4756 0 LITERAL H_STYLE_HEADERS = 196;
R4757 0
UR4758 0 %IF DSRPLUS %THEN
UR4759 0 LITERAL H_STYLE_TABLE = 197;
R4760 0 %FI
R4761 0
R4762 0 LITERAL H_STYLE_TIME = 198;
R4763 0 LITERAL H_SUBINDEX = 199;
R4764 0 LITERAL H_SUBPAGE = 200;
R4765 0 LITERAL H_SUBTITLE = 201;
R4766 0 LITERAL H_TAB_STOPS = 202;
R4767 0 LITERAL H_TEST_PAGE = 203;
R4768 0 LITERAL H_TITLE = 204;
R4769 0 LITERAL H_UPPER_CASE = 205;
R4770 0 LITERAL H_VARIABLE = 206;
R4771 0 LITERAL H_XLOWER = 207;
R4772 0
UR4773 0 %IF DSRPLUS %THEN
UR4774 0 LITERAL H_XPLUS = 208;
R4775 0 %FI
R4776 0
R4777 0 LITERAL H_XUPPER = 209;
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

D 11  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742 Page 168  
15-Sep-1984 22:54:15 \_\$255\$DUA28:[RUNOFF.SRC]RUNHAN.REQ;1 (3)

```

R4778 0
UR4779 0 %IF DSRPLUS %THEN
UR4780 0 LITERAL H_YPLUS = 210;
R4781 0 %FI
R4782 0
R4783 0 LITERAL FIRST_COMMAND = 1;
R4784 0 LITERAL LAST_COMMAND = 215;
R4785 0
R4786 0 ! End of RUNHAN.REQ

```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

E 11  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 169  
(2)

: 4787 0 REQUIRE 'REQ:SAVE.REQ'; ! Save and Restore definitions



FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

6 11

15-Sep-1984 23:07:40  
15-Sep-1984 22:54:24

VAX-11 Bliss-32 V4.0-742  
\$255\$DUA28:[RUNOFF.SRC]SAVE.REQ;1

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(1)

R4845 0	005	KFA00005	Ken Alden	27-Jul-1983
R4846 0		Added gca_flag_cmd to the save list.		
R4847 0	004	KFA00004	Ken Alden	5-Jul-1983
R4848 0		Added SCA_FLAGS to the save list.		
R4849 0	003	KAD00003	Keith Dawson	07-Mar-1983
R4850 0		Global edit of all modules. Updated module names, idents,		
R4851 0		copyright dates. Changed require files to BLISS library.		
R4852 0				
R4853 0				
R4854 0				
R4855 0	--			

```

R4856 0  $FIELD SAVE_FIELDS =
R4857 0   SET
R4858 0   save$g_sca_cc_ok      = [$INTEGER],
R4859 0   save$g_sca_justify   = [$INTEGER],
R4860 0   save$g_sca_fill     = [$INTEGER],
R4861 0   save$g_sca_crock   = [$INTEGER],
R4862 0   save$g_sca_lm      = [$INTEGER],
R4863 0   save$g_sca_rm      = [$INTEGER],
R4864 0   save$g_sca_spacing  = [$INTEGER],
R4865 0   save$g_sca_ker     = [$INTEGER],
R4866 0   save$g_sca_autotitle= [$INTEGER],
R4867 0   save$g_sca_flags    = [$INTEGER],
R4868 0   save$g_gca_width   = [$INTEGER],
R4869 0   save$g_gca_flag_cmd= [$INTEGER],
R4870 0   save$g_gca_keep    = [$INTEGER],
R4871 0   save$g_hct_hd_case = [$INTEGER],
R4872 0   save$g_hct_date    = [$INTEGER],
R4873 0   save$g_hct_headers = [$INTEGER],
R4874 0   save$g_hct_nmpg_np = [$INTEGER],
R4875 0   save$g_hct_number_pag= [$INTEGER],
R4876 0   save$g_hct_subtitle= [$INTEGER],
R4877 0   save$g_phan_llines = [$INTEGER]
R4878 0   TES;
R4879 0
R4880 0  LITERAL
R4881 0   save$k_length = $FIELD_SET_SIZE;
R4882 0
R4883 0  MACRO
MR4884 0   $save_block =
R4885 0   BLOCK [save$k_length] FIELD (save_fields) %;
R4886 0
R4887 0  $FIELD saveall_fields =
R4888 0   SET
R4889 0   saveall$g_gca_autojust = [$INTEGER],
R4890 0   saveall$g_gca_autopara = [$INTEGER],
R4891 0   saveall$g_gca_autosubt = [$INTEGER],
R4892 0   saveall$g_gca_autotabl = [$INTEGER],
R4893 0   saveall$g_gca_case    = [$INTEGER],
R4894 0   saveall$g_gca_xcase   = [$INTEGER],
R4895 0   saveall$g_phan_header = [$INTEGER],
R4896 0   saveall$g_phan_paging = [$INTEGER],
R4897 0   saveall$g_sca_cc_ok  = [$INTEGER],
R4898 0   saveall$g_sca_bar_char= [$INTEGER],
R4899 0   saveall$g_sca_period = [$INTEGER]
R4900 0   TES;
R4901 0
R4902 0  LITERAL
R4903 0   saveall$k_length = $FIELD_SET_SIZE;
R4904 0
R4905 0  MACRO
MR4906 0   $saveall_block =
R4907 0   BLOCK [saveall$k_length] FIELD (saveall_fields) %;
R4908 0
R4909 0  MACRO
MR4910 0   $XWDS (defined_as) =
R4911 0   %SIZE(defined_as)/%UPVAL %;
R4912 0

```

```
: R4913 0 LITERAL
: R4914 0      ! Counting %BPVALs (or fullwords) since the size of this literal
: R4915 0      is in %BPVALs.
: R4916 0
: R4917 0      save_length = $XWDS(flag_table [flag_count]) ! The flag table.
: R4918 0      + $XWDS(COUNTED_LIST [max_tabs]) ! The TAB table
: R4919 0      + $XWDS(atable_definition) ! The Action TABLE
: R4920 0      + $XWDS(VECTOR [pdt_size]) ! paragraph definition tables
: R4921 0      + save$k_length, ! SAVE block
: R4922 0
: CR4923 0      % ( save_length = (flag_count * 2) ! Each flag uses Two fullwords
: CR4924 0      + max_tabs+2 ! maximum tabs plus two control words
: CR4925 0      + CH$ALLOCATION(atable_length)! Each Action TABLE entry is one byte
: CR4926 0      + pdt_size ! paragraph definition tables
: CR4927 0      + $XWDS($save_block), ! SAVE block
: R4928 0      )
: R4929 0      saveall_length = save_length      ! Size of SAVE structure
: R4930 0      + saveall$k_length      ! SAVEALL block
: R4931 0      + 6      ! for DATTIM
: R4932 0      + $xwds(counted_list [max_levels]) ! for HLLIST
: R4933 1      + (max_ecc * ecc$k_length) ! for ECC
: UR4934 1      %IF DSRPLUS %THEN
: UR4935 1      + 1      ! for XPD_FLAGS
: UR4936 1      + $xwds(fixed_string [xp_string_size]) ! for XPD_APPEND
: R4937 0      %
: R4938 0
: CR4939 0      % ( Alternate definitions:
: CR4940 0      + max_levels+2      ! for HLLIST
: CR4941 0      + (xp_string_size/%UPVAL)+4 ! for XPD_APPEND
: R4942 0      )%
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

J 11  
15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 174  
(2)

: 4943 0 REQUIRE 'REQ:SAVSTK.REQ'; ! Save and Restore stack

R4944 0

Version: 'V04-000'

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R4969 0

R4970 0

R4971 0

++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

R4972 0

ABSTRACT:

Defines the storage area for the .SAVE commands.

R4973 0

ENVIRONMENT: Transportable BLISS

R4974 0

AUTHOR: Ken Alden

R4975 0

CREATION DATE: December 1982

R4976 0

MODIFIED BY:

R4977 0

002 KAD00002 Keith Dawson 07-Mar-1983

Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

R4978 0

R4979 0

R4980 0

R4981 0

R4982 0

R4983 0

R4984 0

R4985 0

R4986 0

R4987 0

R4988 0

R4989 0

R4990 0

R4991 0

R4992 0

R4993 0

R4994 0

R4995 0

R4996 0

R4997 0

R4998 0

R4999 0

R5000 0

LITERAL  
stksav\_size = 30, ! We store up to 30 .SAVEs to record trans.  
savstk\_size = 20, ! Up to 20 levels of .SAVEs  
savstk\_depth = -1, ! Index into the SAVSTK where the current depth is saved.  
savstk\_address = 0, ! Index to starting address of the save block.  
savstk\_source = 1, ! The handler code of the command that made this entry.  
savstk\_req\_d = 2, ! REQUIRE depth at which .IF must terminate  
savstk\_ipagen = 3, ! Input file page number  
savstk\_iseqn = 4, ! Input file sequence number.  
savstk\_fspecp = 5, ! A reference to the file spec where the command occurred.

```
R5001 0      savstk_fspec = 6;      ! Length of file spec of above.
R5002 0
R5003 0      LITERAL
R5004 0      savstk_item_count = 7;      !Number of pieces of info in SAVSTK.
R5005 0
R5006 0      STRUCTURE
R5007 0      savstack [i,j;n=stksav_size,m=savstk_item_count] =
R5008 0      [%UPVAL*( m*n + 1 + 8 )]      ! Leave room for the 0th nesting level.
R5009 2      (savstack + (IF j EQL savstk_depth
R5010 2      THEN 0
R5011 0      ELSE %UPVAL*(1 + m*i + j) ) );
R5012 0
R5013 0      !      End of SAVSTK.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

M 11

15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

Page 177  
(2)

: 5014 0 REQUIRE 'REQ:SCA.REQ'; ! SCA\_... Scanner and translator control items

R5015 0  
R5016 0  
R5017 0  
R5018 0  
R5019 0  
R5020 0  
R5021 0  
R5022 0  
R5023 0  
R5024 0  
R5025 0  
R5026 0  
R5027 0  
R5028 0  
R5029 0  
R5030 0  
R5031 0  
R5032 0  
R5033 0  
R5034 0  
R5035 0  
R5036 0  
R5037 0  
R5038 0  
R5039 0  
R5040 0  
R5041 0  
R5042 0  
R5043 0  
R5044 0  
R5045 0  
R5046 0  
R5047 0  
R5048 0  
R5049 0  
R5050 0  
R5051 0  
R5052 0  
R5053 0  
R5054 0  
R5055 0  
R5056 0  
R5057 0  
R5058 0  
R5059 0  
R5060 0  
R5061 0  
R5062 0  
R5063 0  
R5064 0  
R5065 0  
R5066 0  
R5067 0  
R5068 0  
R5069 0  
R5070 0  
R5071 0

Version: 'V04-000'

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++  
FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
Definitions having to do with SCA (SCANT control area).

ENVIRONMENT: Compatible BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:

016 REM00016 Ray Marshall 16-November-1983  
Added macros with "f" within their names and defining cells  
so they can be loaded by Ken's SAVRES module using macro  
names instead of numeric offsets.

015 REM00015 Ray Marshall 7-November-1983  
Added 12 more cells to the case rules section to support case  
changing within the DEC multinational character set. This  
also required renumbering the whole table!

014 KFA00014 Ken Alden 18-Sep-1983  
For DSRPLUS: added sca\_margin\_pad.

013A KFA00013A Ken Alden 30-Sep-1983  
Comment changes only; for three items that moved  
from save to save all.

R5072 0		
R5073 0		
R5074 0		
R5075 0		
R5076 0		
R5077 0		
R5078 0		
R5079 0		
R5080 0		
R5081 0		
R5082 0		
R5083 0		
R5084 0		
R5085 0		
R5086 0		
R5087 0		
R5088 0		

013 KFA00013 Ken Alden 13-Sep-1983  
For DSRPLUS: Added SCA\_WRD\_PASS to the SCA\_PASS word [35]  
and made SCA\_PASS into a-bit.

012 KFA00012 Ken Alden 05-Jul-1983  
added SCA\_FLAGS to the save list.

011 KFA00011 Ken Alden 15-Mar-1983  
For DSRPLUS: added SCA[35] SCA\_PASS for flags passthrough  
For DSR: Extended SAVE & RESTORE capability.

010 KAD00010 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--

```

R5089 0 MACRO
R5090 0 SCA_FC_UT = SCA[00]%, Save case rules here when
R5091 0 SCA_OC_UT = SCA[01]%, exceptions are set up.
R5092 0 SCA_FC_LT = SCA[02]%
R5093 0 SCA_OC_LT = SCA[03]%
R5094 0 SCA_WRD_FC_UT = SCA[04]%, ...
R5095 0 SCA_WRD_FC_LT = SCA[05]%, Case rules for current word.
R5096 0 SCA_WRD_OC_UT = SCA[06]%
R5097 0 SCA_WRD_OC_LT = SCA[07]%
R5098 0 SCA_FCBF_UT = SCA[08]%, ...
R5099 0 SCA_OCBF_UT = SCA[09]%
R5100 0 SCA_FCBF_LT = SCA[10]%
R5101 0 SCA_OCBF_LT = SCA[11]%
R5102 0 SCA_MNFC_UT = SCA[12]%, Save case rules here when
R5103 0 SCA_MNOC_UT = SCA[13]%, exceptions are set up.
R5104 0 SCA_MNFC_LT = SCA[14]%
R5105 0 SCA_MNOC_LT = SCA[15]%
R5106 0 SCA_MNWRD_FC_UT = SCA[16]%, ...
R5107 0 SCA_MNWRD_FC_LT = SCA[17]%
R5108 0 SCA_MNWRD_OC_UT = SCA[18]%
R5109 0 SCA_MNWRD_OC_LT = SCA[19]%
R5110 0 SCA_MNFCBE_UT = SCA[20]%, ...
R5111 0 SCA_MNOCBE_UT = SCA[21]%
R5112 0 SCA_MNFCBE_LT = SCA[22]%
R5113 0 SCA_MNOCBE_LT = SCA[23]%
R5114 0 SCA_WORD_SET = SCA[24]%, TRUE if case rules set for a word only.
R5115 0 !***** Everything above this point is counted in SCA_CASE_SIZE.
R5116 0
R5117 0
R5118 0 SCA_JUSTIFY = .SCA[25]%, !(SAVE)TRUE if text should be justified.
R5119 0 SCA_f JUSTIFY = SCA[25]%
R5120 0 SCA_FILL = .SCA[26]%, !(SAVE)TRUE if filling lines.
R5121 0 SCA_f FILL = SCA[26]%
R5122 0 SCA_CC_OK = .SCA[27]%, !(SAVE ALL)TRUE if control characters allowed in input file
R5123 0 SCA_f CC_OK = SCA[27]%
R5124 0 SCA_CROCK = .SCA[28]%, !(SAVE)See FJNFNJ for explanation.
R5125 0 SCA_f CROCK = SCA[28]%
R5126 0 SCA_LM = .SCA[29]%, !(SAVE)The left margin.
R5127 0 SCA_f LM = SCA[29]%
R5128 0 SCA_RM = .SCA[30]%, !(SAVE)The right margin.
R5129 0 SCA_f RM = SCA[30]%
R5130 0 SCA_SPACING = .SCA[31]%, !(SAVE)1+number of blank lines between lines of text.
R5131 0 SCA_f SPACING = SCA[31]%
R5132 0 SCA_PERIOD = .SCA[32]%, !(SAVE ALL)TRUE if double spacing after ".?!;:"
R5133 0 SCA_f PERIOD = SCA[32]%
R5134 0 SCA_KER = .SCA[33]%, !(SAVE)TRUE if empty records have significance.
R5135 0 SCA_f KER = SCA[33]%
R5136 0 SCA_BAR_CHAR = .SCA[34]%, !(SAVE ALL)Change bar character to be used if enabled.
R5137 0 SCA_f BAR_CHAR = SCA[34]%
R5138 0 SCA_AUTOTITLE = .SCA[35]%, !(SAVE)TRUE if .AUTOTITLE is in effect.
R5139 0 SCA_f AUTOTITLE = SCA[35]%
R5140 0 SCA_FLAGS = .SCA[36]%, !TRUE if flags are enabled.
R5141 0 SCA_f FLAGS = SCA[36]%
R5142 0
R5143 0 !***** end of save area *****
R5144 0
R5145 0 SCA_FC = SCA[37]%, !TRUE if first character on the line.

```

```

R5146 0      SCA_NBITS      = SCA[38]%,      |SEE BELOW
R5147 0      SCA_X_FLAG     = SCA[39]%,      |TRUE if in the middle of a sequence
R5148 0      SCA_FRC_CASE   = SCA[40]%,      |marked by the <INDEX flag>
R5149 0      SCA_CONT       = SCA[41]%,      |TRUE if case of current
R5150 0      SCA_D0_NBITS   = SCA[42]%,      |word was forced.
R5151 0      SCA_PRESCAN   = SCA[43]%,      |TRUE if user said .NO SPACE
R5152 0      SCA_HEADER     = SCA[44]%,      |SEE BELOW
R5153 0      SCA_SECT_EMPTY = SCA[45]%,      |See SCANT for explanation
R5154 0      SCA_XROUTINE   = SCA[46]%,      |Used by FLIP -- True if
R5155 0      SCA_XROUTINE   = SCA[46]%,      |collecting a header level.
R5156 0      SCA_XROUTINE   = SCA[46]%,      |TRUE if nothing in current section.
R5157 0      SCA_XROUTINE   = SCA[46]%,      |Indicates which routine to call for indexing:
R5158 0      SCA_XROUTINE   = SCA[46]%,      |!FALSE ==> XR, TRUE ==> SUBXR.

UR5159 0      %IF DSRPLUS %THEN
UR5160 0      SCA_PASS       = (SCA[47])<0,1>%,, |TRUE user is passing escape
UR5161 0      SCA_WRD_PASS   = (SCA[47])<1,1>%,, |sequences.
UR5162 0      SCA_MARGIN_PAD = (SCA[47])<8,8>%,, |TRUE user is passing escape
UR5163 0      SCA_MARGIN_PAD = (SCA[47])<8,8>%,, |sequences along with this word.
UR5164 0      SCA_MARGIN_PAD = (SCA[47])<8,8>%,, |Number of spaces added at the
UR5165 0      SCA_MARGIN_PAD = (SCA[47])<8,8>%,, |beginning of MRA.

R5166 0      %FI
R5167 0      !
R5168 0      ! ... SCA_WRD_NBITS = SCA[48]%,      |SEE BELOW
R5169 0      SCA_WRD_CNBITS = SCA[49]%,      |SEE BELOW
R5170 0      SCA_WRD_ACNBITS = SCA[50]%,      |SEE BELOW
R5171 0      SCA_RSKIPS     = SCA[51]%,      |TRUE if multiple spaces/tabs are to
R5172 0      SCA_RSKIPS     = SCA[51]%,      |be skipped.

R5173 0      !
R5174 0      ! ... SCA_FC_CASE   = SCA[52]%,      |TRUE if case rules to be used are
R5175 0      SCA_INDEX      = SCA[53]%,      |those for the first character of a word.
R5176 0      SCA_FRC_CHR   = SCA[54]%,      |TRUE if indexing commands are to be obeyed.
R5177 0      SCA_INDENT     = SCA[55]%,      |True if current character should not be translated.
R5178 0      SCA_PARA_PND   = SCA[56]%,      |Pending indentation.
R5179 0      SCA_PARA_PND   = SCA[56]%,      |TRUE if a paragraph is pending.

R5180 0      !
R5181 0      !
R5182 0      !
R5183 0      !
R5184 0      !***** Everything below this point refers to the word currently being
R5185 0      !***** scanned.
R5186 0      SCA_WRD_PNTR   = SCA[62]%,      |A CH$PTR to the first character of the word.
R5187 0      SCA_WRD_INT_L   = SCA[63]%,      |Internal representation size so far.
R5188 0      SCA_WRD_EXT_L   = SCA[64]%,      |External size (i.e., print positions)
R5189 0      SCA_WRD_ISEQN   = SCA[65]%,      |Input line counter or record number.
R5190 0      SCA_WRD_DRAFT   = SCA[66]%,      |TRUE if word is inside a /DRAFT area.
R5191 0      SCA_WRD_DRAFT_F = SCA[67]%,      |The draft flag for this word.
R5192 0      SCA_WRD_BARS   = (SCA[68])<BAR->%,, |TRUE if change bars associated with this word.
R5193 0      SCA_WRD_BAR_CHR = SCA[69]%,      |Use this character as the change bar.
R5194 0      SCA_WRD_CPEND   = SCA[70]%,      |Character being worked on.
R5195 0      SCA_WRD_SEQN_F  = SCA[71]%,      |TRUE if SCA_WRD_ISEQN is an SOS style record number.
R5196 0      SCA_WRD_IPAGEN  = SCA[72]%,      |Input page number.
R5197 0      SCA_WRD_FOOTW  = SCA[73]%,      |The number of footnotes attached to
R5198 0      SCA_WRD_F_XTN   = SCA[74]%,      |this word.
R5199 0      SCA_WRD_L_XTN   = SCA[75]%,      |First transaction number associated with this word.
R5200 0      SCA_WRD_L_XTN   = SCA[75]%,      |Last transaction number associated with this word.

R5201 0      !
R5202 0      ! ... SCA_WRD_LST_HYP = SCA[80]%,      |TRUE if word to end with a '-'.
R5202 0      SCA_WRD_HYP_PTR = SCA[81]%,      |If SCA_WRD_LST_HYP is TRUE,

```

R5203 0  
R5204 0  
R5205 0  
R5206 0  
R5207 0  
R5208 0  
R5209 0  
R5210 0  
R5211 0  
R5212 0  
R5213 0  
R5214 0  
R5215 0  
R5216 0  
R5217 0  
R5218 0  
R5219 0  
R5220 0  
R5221 0  
R5222 0  
R5223 0  
R5224 0  
R5225 0  
R5226 0  
R5227 0  
R5228 0  
R5229 0  
R5230 0  
R5231 0  
R5232 0  
R5233 0  
R5234 0  
R5235 0  
R5236 0  
R5237 0  
R5238 0  
R5239 0  
R5240 0  
R5241 0  
R5242 0  
R5243 0  
R5244 0  
R5245 0  
R5246 0  
R5247 0  
R5248 0  
R5249 0  
R5250 0  
R5251 0  
R5252 0  
R5253 0  
R5254 0  
R5255 0  
R5256 0  
R5257 0  
R5258 0  
R5259 0

SCA\_WRD\_LC\_PNCT = SCA[82]%, !then a CHSPTR to the '-'.  
SCA\_WRD\_LST\_SP = SCA[83]%, !TRUE if last character was end-of-sentence punctuation.  
SCA\_WRD\_LST\_JUS = SCA[84]%, !Number of spaces after last word.  
SCA\_WRD\_LST\_UND = SCA[85]%; !True if justification mark after last word.  
True if last space was underlined.

LITERAL SCA\_CASE\_SIZE = 25, !Number of cells containing case information  
LITERAL SCA\_SIZE = 96; !Number of cells in entire SCA

LITERAL SCA\_SAVE\_START = 25, !Starting number of the SAVED SCA bits  
SCA\_SAVE\_END = 36; !Ending

!NOTE\*\*\*\* For all fields having to do with underlining, bolding, etc, see ENDCHR, ENDWRD, OUTLIN, and DOFLG  
! to see how these fields get manipulated.

The bits defined by these macros get set to TRUE if SCANT is supposed  
to BoLD and/or UNDERline all characters it encounters. These bits get  
set/unset by things like ^& and \&, and .ENABLE/.DISABLE BOLDING, etc.

MACRO  
SCA\_BLD = (SCA\_NBITS)<BLD-->%,  
SCA\_UND = (SCA\_NBITS)<UND-->%,  
SCA\_BLDUND = (SCA\_NBITS)<BLDUND-->%; ! Bolding and underlining  
! as a set.

The bits defined by these macros determine whether or not various flags  
have any effect. TRUE means that the corresponding function should be  
done when the flag is recognized, FALSE not.  
These bits get set/cleared by commands such as .ENABLE/.DISABLE BOLDING,  
and so on. See FLGSEM, which sets these flags.  
There is a difference between SCA\_XXX and SCA\_DO\_XXX. The former  
indicates whether or not the XXX type of emphasis has been turned on  
by a construct such as ^&. The latter indicates whether or not the  
emphasis called for by XXX should really be done. In particular,  
consider the following sequence:  
00100 .ENABLE UNDERLINING;^&  
00200 This text will be underlined because both .ENABLE UNDERLINING and \_^\_&  
00300 were specified. But  
00400 .DISABLE UNDERLINING; this text (after the ";") will not be underlined  
00500 because the .DISABLE UNDERLINING command indicates it should not be  
00600 done. Or, perhaps more interesting is the fact that even  
00700 Et&h&e&s&e Et&w&o Et&w&o&r&d&s will not be underlined whereas  
00800 .ENABLE UNDERLINING; these two words\& will be underlined, but nothing  
00900 after the \_\& sequence.

MACRO !See FLGSEM  
SCA\_DO\_BLD = (SCA\_DO\_NBITS)<BLD-->%,  
SCA\_DO\_UND = (SCA\_DO\_NBITS)<UND-->%,  
SCA\_DO\_BLDUND = (SCA\_DO\_NBITS)<BLDUND-->%; !Bolding and underlining as a set.  
SCA\_DO\_OVR = (SCA\_DO\_NBITS)<OVR-->%,  
SCA\_DO\_IND = (SCA\_DO\_NBITS)<IND-->%,  
SCA\_DO\_HYP = (SCA\_DO\_NBITS)<HYP-->%;

MACRO  
The fields defined here are accumulated for an entire word.  
They get cleared at the start of a new word.

```
R5260 0      SCA_WRD_BLD    = (SCA_WRD_NBITS)<BLD__>%,  
R5261 0      SCA_WRD_UND   = (SCA_WRD_NBITS)<UND__>%,  
R5262 0      SCA_WRD_BLDUND = (SCA_WRD_NBITS)<BLDUND__>%,. !Bolding and underlining as a set  
R5263 0      SCA_WRD_OVR    = (SCA_WRD_NBITS)<OVR__>%;  
R5264 0  
R5265 0      MACRO  
R5266 0      | The fields defined here get set just before a new character  
R5267 0      | is picked up. They are inherited from the global environment  
R5268 0      | in effect at that time.  
R5269 0  
R5270 0      SCA_WRD_C_BLD   = (SCA_WRD_CNBITS)<BLD__>%,  
R5271 0      SCA_WRD_C_UND   = (SCA_WRD_CNBITS)<UND__>%,  
R5272 0      SCA_WRD_C_BLDUND = (SCA_WRD_CNBITS)<BLDUND__>%,. !Bolding and underlining as a set  
R5273 0      SCA_WRD_C_OVR   = (SCA_WRD_CNBITS)<OVR__>%;  
R5274 0  
R5275 0      MACRO  
R5276 0      | The fields defined here get set as various functions are  
R5277 0      | requested, on a once-only basis (e.g., single character underline, &x). These fields, together with  
R5278 0      | the previous three fields, determine what functions have been  
R5279 0      | requested for a specific character.  
R5280 0  
R5281 0      SCA_WRD_AC_BLD  = (SCA_WRD_ACNBITS)<BLD__>%,  
R5282 0      SCA_WRD_AC_UND  = (SCA_WRD_ACNBITS)<UND__>%,  
R5283 0      SCA_WRD_AC_BLUN = (SCA_WRD_ACNBITS)<BLDUND__>%,. !Bolding and underlining as a set  
R5284 0      SCA_WRD_AC_OVR  = (SCA_WRD_ACNBITS)<OVR__>%;  
R5285 0  
R5286 0      MACRO  
MR5287 0      SCA_DEFINITION =  
R5288 0      VECTOR[SCA_SIZE]%;  
R5289 0  
R5290 0      $FIELD H_R_SCA_FIELDS =  
R5291 0      SET  
R5292 0      H_R_SG_SCA_JUSTIFY = [$INTEGER],  
R5293 0      H_R_SG_SCA_FILL = [$INTEGER],  
R5294 0      H_R_SG_SCA_CC_OK = [$INTEGER],  
R5295 0      H_R_SG_SCA_CROCK = [$INTEGER],  
R5296 0      H_R_SG_SCA_LM = [$INTEGER],  
R5297 0      H_R_SG_SCA_RM = [$INTEGER],  
R5298 0      H_R_SG_SCA_SPACING = [$INTEGER],  
R5299 0      H_R_SG_SCA_PERIOD = [$INTEGER],  
R5300 0      H_R_SG_SCA_KER = [$INTEGER],  
R5301 0      H_R_SG_SCA_BAR_CHAR = [$INTEGER],  
R5302 0      H_R_SG_SCA_AUTOTITLE = [$INTEGER],  
R5303 0      H_R_SG_SCA_FLAGS = [$INTEGER]  
R5304 0      TES;  
R5305 0  
R5306 0      LITERAL  
R5307 0      H_R_SCASK_LENGTH = $FIELD_SET_SIZE;  
R5308 0  
R5309 0  
R5310 0      LITERAL  
R5311 0      MAX_H_R_SCA = 3; !This means there are a maximum of 3 concurrent PUSH_SCAs.  
MR5312 0      MACRO  
R5313 0      $H_R_SCA_BLOCK =  
R5314 0      BLOCK [H_R_SCASK_LENGTH] FIELD (H_R_SCA_FIELDS) %;  
R5315 0  
MR5316 0      MACRO  
PUSH_SCA =
```

```
: MR5317 0 BEGIN
: MR5318 0 PP-SCA [ H_R_SG_SCA_JUSTIFY ] = .SCA_JUSTIFY;
: MR5319 0 PP-SCA [ H_R_SG_SCA_FILL ] = .SCA_FILL;
: MR5320 0 PP-SCA [ H_R_SG_SCA_CC_OK ] = .SCA_CC_OK;
: MR5321 0 PP-SCA [ H_R_SG_SCA_CROCK ] = .SCA_CROCK;
: MR5322 0 PP-SCA [ H_R_SG_SCA_LM ] = .SCA_LM;
: MR5323 0 PP-SCA [ H_R_SG_SCA_RM ] = .SCA_RM;
: MR5324 0 PP-SCA [ H_R_SG_SCA_SPACING ] = .SCA_SPACING;
: MR5325 0 PP-SCA [ H_R_SG_SCA_PERIOD ] = .SCA_PERIOD;
: MR5326 0 PP-SCA [ H_R_SG_SCA_KER ] = .SCA_KER;
: MR5327 0 PP-SCA [ H_R_SG_SCA_BAR_CHAR ] = .SCA_BAR_CHAR;
: MR5328 0 PP-SCA [ H_R_SG_SCA_AUTOTITLE ] = .SCA_AUTOTITLE;
: MR5329 0 PP-SCA [ H_R_SG_SCA_FLAGS ] = .SCA_FLAGS
: MR5330 0 END
: R5331 0 %
: R5332 0
: R5333 0
: MR5334 0 MACRO
: MR5335 0 POP_SCA =
: MR5336 0 BEGIN
: MR5337 0 SCA_JUSTIFY = .PP_SCA [ H_R_SG_SCA_JUSTIFY ];
: MR5338 0 SCA_FILL = .PP_SCA [ H_R_SG_SCA_FILL ];
: MR5339 0 SCA_CC_OK = .PP_SCA [ H_R_SG_SCA_CC_OK ];
: MR5340 0 SCA_CROCK = .PP_SCA [ H_R_SG_SCA_CROCK ];
: MR5341 0 SCA_LM = .PP_SCA [ H_R_SG_SCA_LM ];
: MR5342 0 SCA_RM = .PP_SCA [ H_R_SG_SCA_RM ];
: MR5343 0 SCA_SPACING = .PP_SCA [ H_R_SG_SCA_SPACING ];
: MR5344 0 SCA_PERIOD = .PP_SCA [ H_R_SG_SCA_PERIOD ];
: MR5345 0 SCA_KER = .PP_SCA [ H_R_SG_SCA_KER ];
: MR5346 0 SCA_BAR_CHAR = .PP_SCA [ H_R_SG_SCA_BAR_CHAR ];
: MR5347 0 SCA_AUTOTITLE = .PP_SCA [ H_R_SG_SCA_AUTOTITLE ];
: MR5348 0 SCA_FLAGS = .PP_SCA [ H_R_SG_SCA_FLAGS ]
: MR5349 0 END
: R5349 0 %
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

H 12

15-Sep-1984 23:07:40  
15-Sep-1984 22:50:43

VAX-11 Bliss-32 V4.0-742  
\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

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(2)

: 5350 0 REQUIRE 'REQ:SETCAS.REQ'; ! Case control literals

R5351 0  
R5352 0 Version: 'V04-000'  
R5353 0  
R5354 0  
R5355 0  
R5356 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
R5357 0 \* DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.  
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R5369 0 \* CORPORATION.  
R5370 0  
R5371 0 \* DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS  
R5372 0 \* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.  
R5373 0  
R5374 0  
R5375 0  
R5376 0  
R5377 0  
R5378 0 ++  
R5379 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R5380 0  
R5381 0 ABSTRACT:  
R5382 0 Mnemonics for forcing letters into appropriate case.  
R5383 0  
R5384 0 ENVIRONMENT: Transportable BLISS  
R5385 0  
R5386 0 AUTHOR: Rich Friday  
R5387 0  
R5388 0 CREATION DATE: 1978  
R5389 0  
R5390 0 MODIFIED BY:  
R5391 0  
R5392 0 002 KAD00002 Keith Dawson 07-Mar-1983  
R5393 0 Global edit of all modules. Updated module names, idents,  
R5394 0 copyright dates. Changed require files to BLISS library.  
R5395 0  
R5396 0 --  
R5397 0  
R5398 0 LITERAL  
R5399 0 force\_lower = -1. !Force letters to lower case.  
R5400 0 leave\_case = 0. !Leave letters in same case as input.  
R5401 0 force\_upper = 1. !Force letters to upper case.  
R5402 0 first\_caps = 2. !First letter of each word to upper case, the rest to  
R5403 0 case implied by UPPER/.LOWER CASE.  
R5404 0 one\_cap = 3; !First letter of first word to upper case, the rest to lower.  
R5405 0  
R5406 0 LITERAL  
R5407 0 setcase\_low = -1. !Lowest numbered translation rule.

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

J 12  
15-Sep-1984 23:07:40  
15-Sep-1984 22:54:33

VAX-11 Bliss-32 V4.0-742  
\_ \$255\$DUA28:[RUNOFF.SRC]SETCAS.REQ;1

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(1)

: R5408 0      setcase\_high=      3;      !Highest numbered translation rule.  
: R5409 0  
: R5410 0      !  
                    End of SETCAS.REQ

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

K 12

15-Sep-1984 23:07:40

VAX-11 Bliss-32 V4.0-742

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(2)

15-Sep-1984 22:50:43

\_S255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

: 5411 0 REQUIRE 'REQ:TOCRTY.REQ'; ! TOC record type definitions (MAJ\_ & MIN\_)

R5412 0  
R5413 0 Version: 'V04-000'  
R5414 0  
R5415 0 \*\*\*\*\*  
R5416 0 \*  
R5417 0 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
R5418 0 \* DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.  
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R5433 0 \* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.  
R5434 0 \*  
R5435 0 \*  
R5436 0 \* \*\*\*\*\*  
R5437 0  
R5438 0  
R5439 0 ++  
R5440 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R5441 0  
R5442 0 ABSTRACT:  
R5443 0 Literals defining the record types found in a .BTC or .BRN file. Each  
R5444 0 record is preceded by two words, containing the major record type  
R5445 0 and the minor record type.  
R5446 0  
R5447 0 ENVIRONMENT: Transportable BLISS  
R5448 0  
R5449 0 AUTHOR: Keith Dawson  
R5450 0  
R5451 0 CREATION DATE: May 1982  
R5452 0  
R5453 0 MODIFIED BY:  
R5454 0  
R5455 0 007 KAD00007 Keith Dawson 07-Mar-1983  
R5456 0 Global edit of all modules. Updated module names, idents,  
R5457 0 copyright dates. Changed require files to BLISS library.  
R5458 0  
R5459 0  
R5460 0 --  
R5461 0 LITERAL  
R5462 0 maj\_new\_toc = 1; !Major record types.  
R5463 0 maj\_runoff = 2; !New TOC starting (at start of each file)  
R5464 0 maj\_send = 3; !Record is something automatically output by DSR  
R5465 0 maj\_send\_contents = 4; !Record is something specified by .SEND TOC  
R5466 0  
R5467 0 !Record is something specified by .SEND CONTENTS  
R5468 0  
R5469 0 !The following minor record types apply when the major record type is MAJ\_RUNOFF.

R5469 0 LITERAL  
R5470 0 min\_hl\_inf = 0; !Header level information  
R5471 0 min\_page = 1; !Page number  
R5472 0 min\_hl\_txt = 2; !Header level text, numbered  
R5473 0 min\_chapt = 3; !Chapter title (BTC files only)  
R5474 0 min\_append = 4; !Appendix title (BTC files only)  
R5475 0 min\_index = 5; !Start the index.  
R5476 0 !  
R5477 0 ! min\_hl\_txt\_u = 6; !Header level text, unnumbered  
R5478 0 !  
R5479 0 ! min\_examp\_inf = 7; !Example information  
R5480 0 min\_examp\_txt = 8; !Example caption text, numbered  
R5481 0 min\_examp\_txt\_u = 9; !Example caption text, unnumbered  
R5482 0 !  
R5483 0 ! min\_figur\_inf = 10; !Figure information  
R5484 0 min\_figur\_txt = 11; !Figure caption text, numbered  
R5485 0 min\_figur\_txt\_u = 12; !Figure caption text, unnumbered  
R5486 0 !  
R5487 0 ! min\_table\_inf = 13; !Table information  
R5488 0 min\_table\_txt = 14; !Table caption text, numbered  
R5489 0 min\_table\_txt\_u = 15; !Table caption text, unnumbered  
R5490 0 !  
R5491 0 ! min\_chapt\_inf = 16; !Chapter information  
R5492 0 min\_chapt\_txt = 17; !Chapter caption text, numbered  
R5493 0 min\_chapt\_txt\_u = 18; !Chapter caption text, unnumbered  
R5494 0 !  
R5495 0 ! min\_append\_inf = 19; !Appendix information  
R5496 0 min\_append\_txt = 20; !Appendix caption text, numbered  
R5497 0 min\_append\_txt\_u = 21; !Appendix caption text, unnumbered  
R5498 0 !  
R5499 0 LITERAL  
R5500 0 min\_min\_type = 0; !The minimum minor record type.  
R5501 0 min\_max\_type = 21; !The maximum minor record type.  
R5502 0 !  
R5503 0 !  
R5504 0 ! SEND CONTENTS record group literals.  
R5505 0 !  
R5506 0 LITERAL  
R5507 0 scon\_comm = 1; !Send Contents text is a command  
R5508 0 scon\_txt = 2; !Send Contents text is text, numbered  
R5509 0 scon\_txt\_u = 3; !Send Contents text is text, unnumbered  
R5510 0 !  
R5511 0 !  
R5512 0 ! SEND CONTENTS positioning information.  
R5513 0 !  
R5514 0 LITERAL  
R5515 0 scon\_lev = 1; !Put Send Contents in main part of CONTENTS  
R5516 0 scon\_exa = 2; !Put Send Contents in Examples portion  
R5517 0 scon\_fig = 3; !Put Send Contents in Figures portion  
R5518 0 scon\_tab = 4; !Put Send Contents in Tables portion  
R5519 0 !  
R5520 0 ! End of TOCRTY.REQ

```
5521 0
: U 5522 0 %IF DSRPLUS %THEN
: U 5523 0 REQUIRE 'REQ:TNFDEFS.REQ';
: U 5524 0 REQUIRE 'REQ:TNREC.REQ';
: U 5525 0 REQUIRE 'REQ:TOPNOT.REQ';
: 5526 0 %FI
: 5527 0
: 5528 0 REQUIRE 'REQ:TPROB.REQ'; ! Completion codes returned by TPROBE routine
```



FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

C 13  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 193  
(2)

: 5583 0 REQUIRE 'REQ:TSF.REQ'; ! TSF\_ (Text so far) macro definitions

Th  
ME

R5584 0  
R5585 0 Version: 'V04-000'  
R5586 0  
R5587 0 \*\*\*\*\*  
R5588 0 \*  
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R5606 0 \*  
R5607 0 \*  
R5608 0 \*\*\*\*\*  
R5609 0  
R5610 0  
R5611 0 ++  
R5612 0 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS  
R5613 0  
R5614 0 ABSTRACT:  
R5615 0 Definitions defining TSF (text so far). The information describes  
R5616 0 what is to happen to the line being built up.  
R5617 0  
R5618 0 ENVIRONMENT: Transportable BLISS  
R5619 0  
R5620 0 AUTHOR: Rich Friday  
R5621 0  
R5622 0 CREATION DATE: 1978

R5623 0  
R5624 0  
R5625 0  
R5626 0  
R5627 0  
R5628 0  
R5629 0  
R5630 0  
R5631 0  
R5632 0  
R5633 0  
R5634 0  
R5635 0  
R5636 0

MODIFIED BY:

007 KFA00007 Ken Alden 30-Jun-1983  
Added TSF\_CREF\_COUNT.  
006 REM00006 Ray Marshall 1-June-1983  
Added TSF\_CREF\_DATA.  
005 KAD00005 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.  
--

R5637 0 MACRO  
MR5638 0      tsf\_int\_hl      = tsf [0] !Number of characters, internal representation.  
R5639 0      tsf\_ext\_hl      = tsf [1] !Resulting number of print positions, external.  
MR5640 0      tsf\_nbites      = tsf [2] !Notes about underlining, etc.  
R5641 0      tsf\_footw      = tsf [3] !The number of footnotes attached to this line.  
MR5642 0      tsf\_seqn\_flag      = tsf [4] !TRUE if ISEQN is an SOS style line number.  
R5643 0      tsf\_index      = tsf [5] !TRUE if this belongs in the index.  
MR5644 0      tsf\_int\_vl      = tsf [6] !Number of characters representing carriage control.  
R5645 0      tsf\_bar\_char      = tsf [7] !The character to be used as the change bar.  
MR5646 0      tsf\_jus\_cnt      = tsf [8] !Number of justification marks.  
R5647 0      tsf\_justify      = tsf [9] !True if the line is to be justified.  
MR5648 0      tsf\_adjust      = tsf [10] !Move text this number of positions right.  
R5649 0      tsf\_btc      = tsf [11] !TRUE if this goes to the .BTC file.  
MR5650 0      tsf\_draft\_flag      = tsf [12] !The draft flag for this line.  
R5651 0      tsf\_lines      = tsf [13] !If this record is part of a footnote, the number of lines it generates.  
MR5652 0      tsf\_first\_xtn      = tsf [14] !First transaction number associated with this text.  
R5653 0      tsf\_major      = tsf [14] !If TSF\_BTC is true, the major record type.  
MR5654 0      tsf\_last\_xtn      = tsf [15] !Last transaction number associated with this text.  
R5655 0      tsf\_minor      = tsf [15] !If TSF\_BTC is true, the minor record type.  
MR5656 0      tsf\_padding      = tsf [16] !Number of spaces needed to justify line.  
R5657 0      tsf\_iseq      = tsf [17] !TRUE if the input sequence number is wanted.  
MR5658 0      tsf\_iseqn      = tsf [18] !The input sequence number for this line.  
R5659 0      tsf\_ipagen      = tsf [19] !The input page number for this line.  
MR5660 0      tsf\_filespec      = tsf [20] !A CH\$PTR to the file-spec.  
R5661 0      tsf\_oseq      = tsf [21] !TRUE if the output sequence number is wanted.  
MR5662 0      tsf\_oseqn      = tsf [22] !The output line number for this line  
R5663 0      tsf\_bold\_depth      = tsf [23] !Number of times bolded characters should be overstruck. Zero is  
MR5664 0      tsf\_text      = tsf [24] !True, if TSF contains some text.  
R5665 0      tsf\_just\_alg      = tsf [25] !Justification algorithm to be used on this line.  
MR5666 0  
R5667 0  
MR5668 0  
R5669 0  
MR5670 0  
R5671 0  
MR5672 0  
R5673 0  
MR5674 0  
R5675 0  
MR5676 0  
R5677 0  
MR5678 0  
R5679 0  
MR5680 0  
R5681 0  
MR5682 0  
R5683 0  
MR5684 0  
R5685 0  
MR5686 0  
R5687 0  
MR5688 0  
MR5689 0  
R5690 0  
MR5691 0  
R5692 0  
MR5693 0

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R5694 0
MR5695 0
R5696 0
MR5697 0
R5698 0
MR5699 0
R5700 0
R5701 0
R5702 0
R5703 0
R5704 0
MR5705 0
R5706 0
MR5707 0
R5708 0
MR5709 0
R5710 0
MR5711 0
R5712 0
MR5713 0
R5714 0
R5715 0
R5716 0
R5717 0
R5718 0
R5719 0
R5720 0
R5721 0
MR5722 0
R5723 0
R5724 0
MR5725 0
R5726 0
R5727 0
MR5728 0
R5729 0
R5730 0
R5731 0
MR5732 0
R5733 0
R5734 0
R5735 0
MR5736 0
R5737 0
R5738 0
: R5739 0

      %,
      tsf_xyplus = tsf [26] !True if this line is an XPLUS/YPLUS indexing command.
      %,
      tsf_cref_data = tsf [27] ! Pointer to linked list of CREF BRN records.
      %,
      tsf_cref_count = (tsf [28])<0,8> !Number of pending crefs.
      %,
      tsf_free_cell = tsf [29] !Free cell
      %,
      tsf_free_cell = tsf [30] !Free cell
      %,
      tsf_aux_bits = tsf [31] !Do specified special functions.
      %,
      tsf_h_bars = (tsf [32])<BAR__> !TRUE if change bars apply to the items described by TSF_xxx_HL.
      %,
      tsf_aux_aloc = tsf [33] !How TSF_AUX_SPAC is allocated.
      %,
      tsf_next_reg = tsf [34] !Indicates next free "pseudo-register."
      %,
      tsf_phregs = tsf [35] !Five "pseudo-registers".
      %;
LITERAL
      tsf_nregs = 5;           !Number of "pseudo-registers" available.
LITERAL
      tsf_size = 40;           !Total size of TSF.
MACRO
      tsf_bld = (TSF_NBITS)<BLD__>
      %.
      tsf_und = (TSF_NBITS)<UND__>
      %.
      tsf_ovr = (TSF_NBITS)<OVR__>
      %;
MACRO
      tsf_bars = (TSF_AUX_BITS)<BAR__> !True if change bars apply to the items described by TSF_xxx_VL.
      %;
MACRO
      tsf_definition =
      REF VECTOR [tsf_size];
      ! End of TSF.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
TOCHL -- HL indicator record

H 13

15-Sep-1984 23:07:40

VAX-11 Bliss-32 V4.0-742  
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1

Page 198  
(2)

: 5740 0 REQUIRE 'REQ:VR.REQ': ! VR\_... & VR\*\_DEF for .VR and conditionals

R5741 0  
R5742 0  
R5743 0  
R5744 0  
R5745 0  
R5746 0  
R5747 0  
R5748 0  
R5749 0  
R5750 0  
R5751 0  
R5752 0  
R5753 0  
R5754 0  
R5755 0  
R5756 0  
R5757 0  
R5758 0  
R5759 0  
R5760 0  
R5761 0  
R5762 0  
R5763 0  
R5764 0  
R5765 0  
R5766 0  
R5767 0  
R5768 0  
R5769 0  
R5770 0  
R5771 0  
R5772 0  
R5773 0  
R5774 0  
R5775 0  
R5776 0  
R5777 0  
R5778 0  
R5779 0  
R5780 0  
R5781 0  
R5782 0  
R5783 0  
R5784 0  
R5785 0  
R5786 0  
R5787 0  
R5788 0  
R5789 0  
R5790 0  
R5791 0  
R5792 0  
R5793 0  
R5794 0  
R5795 0  
R5796 1  
R5797 0

Version: 'V04-000'

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FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS

ABSTRACT:  
Tables and definitions used for .VARIABLE, .IF, .IFNOT, .ELSE, and  
.ENDIF. The tables all contain space for an extra entry, so that various  
other pieces of code need not continually check to see if there is an  
entry in the tables.

ENVIRONMENT: Transportable BLISS

AUTHOR: Rich Friday

CREATION DATE: 1978

MODIFIED BY:

002 KAD00002 Keith Dawson 07-Mar-1983  
Global edit of all modules. Updated module names, idents,  
copyright dates. Changed require files to BLISS library.

--

LITERAL  
vr\_table\_count = 5, !Number of tables that are vectors.

vr\_tab\_size = !Total BPVALs needed to save this information.  
!Space for tables that are vectors.  
(max\_vr\_names + 1) \* (vr\_table\_count)

```
R5798 0      !Space for names.  
R5799 0      (max_vr_names + 1) * CH$ALLOCATION (max_vr_length);  
R5800 0  
R5801 0      MACRO  
R5802 0      vrtflg_def =  
R5803 0      VECTOR [max_vr_names + 1]      ! TRUE flag.  
R5804 0      %,  
R5805 0  
R5806 0      vrfflg_def =  
R5807 0      VECTOR [max_vr_names + 1]      ! FALSE flags.  
R5808 0      %,  
R5809 0  
R5810 0      vrbool_def =  
R5811 0      VECTOR [max_vr_names + 1]      ! TRUE/FALSE setting.  
R5812 0      %,  
R5813 0  
R5814 0      vrsrc_def =  
R5815 0      VECTOR [max_vr_names + 1]      ! How variable got defined.  
R5816 0      %,  
R5817 0      ! 0 means /VARIANT, 1 means .VARIABLE.  
R5818 0      vrlnq_def =  
R5819 0      VECTOR [max_vr_names + 1]      ! Lengths of variable names.  
R5820 0      %,  
R5821 0  
R5822 0      vrname_def =  
R5823 0      BLOCKVECTOR [max_vr_names + 1]  
R5824 0      ,ch$allocation (max_vr_length)]  
R5825 0      %:  
R5826 0  
R5827 0      !  
               End of VR.REQ
```

FLIPRECS -- FLIP/RUNOFF record formats  
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K 13  
15-Sep-1984 23:07:40 VAX-11 Bliss-32 V4.0-742  
15-Sep-1984 22:50:43 \_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.REQ;1 Page 201 (2)

: 5828 0 !! REQUIRE 'REQ:XTNTAB.REQ'; ! In-core index table & entry definitions  
: 5829 0 ! End of DSRLIB.REQ

#### Library Statistics

File	-----	Symbols	-----	Pages	Processing
	Total	Loaded	Percent	Mapped	Time
-\$255\$DUA28:[SYSLIB]XPORT.L32;1	590	41	6	252	00:00.2
-\$255\$DUA28:[RUNOFF.SRC]RNODEFDSR.L32;1	6	1	16	5	00:00.1

#### COMMAND QUALIFIERS

: BLISS/LIBRARY=SRC\$:/LIST=LISS: SRC\$:DSRLIB.REQ

: Run Time: 01:17.4  
: Elapsed Time: 01:46.7  
: Lines/CPU Min: 4520  
: Lexemes/CPU-Min: 67306  
: Memory Used: 284 pages  
: Library Precompilation Complete

0339 AH-BT13A-SE  
VAX/VMS V4.0

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0340 AH-BT13A-SE  
VAX/VMS V4.0

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